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Bulletin 830

MISSISSIPPI COTTON VARIETY TESTS FOR 1974

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Mississippi Agricultural and Forestry Experiment Station
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Mississippi Cotton Variety Tests for 1974

Delta locations

Cotton variety tests were conducted at five Delta locations in 1974; Delta Branch Experiment Station, Stoneville, Schaefer Plantation near Yazoo City, Mitchner Plantation near Sumner, and Arnold Farms near Tunica. Variety tests were conducted on two test sites at Stoneville. One site was on a Bosket very fine sandy loam and another on a mixed soil type.

Fifteen varieties were grown on three of the test sites and five additional varieties were grown at Stoneville and Tunica. Varieties grown at Stoneville and Tunica were included in a cooperative, regional variety testing program. Six entries were tested for the first time at all locations. These were Stoneville 256, Stoneville 151, Coker 220, Brycot 4, DES 06-020-24 and DES 2134-018.

Results are reported for each location for the 1974 variety test. Yield data were based on the weight of cotton harvested from 2-row plots. The rows were spaced 40-inches apart at all locations except Summer, where a modified skip-row pattern was used. Each entry was randomized and replicated six times. Lint percentages and fiber property determinations were obtained from hand-picked samples. Fiber property data were determined by the U.S. Cotton Fiber Laboratory of the Agriculture Research Service, U.S. Department of Agriculture, Knoxville, Tennessee.

Performance data of varieties tested in 1974 at individual locations are presented in Tables 1 through 5. Unseasonably cool weather and excessive rain during the latter part of August and in September caused a delay in maturity. The slow maturity resulted in reduced lint yields of most varieties, but the later maturing varieties probably suffered more extensively than the early maturing varieties.

Table 1 shows the results of the variety test conducted on a Bosket very fine sandy loam soil at Stoneville. This test was planted on April 25 and good stands were obtained. The test was irrigated on July 22 and relatively high yields were obtained. Lint yields ranged from 792 to 1168 pounds per acre.

Table 2 gives the results of the variety test conducted on a Dundee silt loam soil at Sumner. This test was planted on April 30 in a modified skip-row pattern. The planting pattern was 2 rows, 40 inches apart and 60-inch skips. The crop matured slower than normally but relatively high yields were obtained. Yields at Sumner ranged from 977 to 1133 pounds of lint per acre.

Results at Yazoo City on a sandy loam soil are presented in Table 3. This test site was planted on April 18 and lint yields ranged from 789 to 1022 pounds per acre. The early planting date and limited moisture during the summer allowed this test to mature relatively early. Due to earlier maturity, this test was harvested only once on October 22. The fiber length of all varieties was shorter and micronaire values higher at this location, which was probably due to the limited rainfall during the summer and to the earlier maturity.

Results at Tunica are presented in Table 4. This test was planted on May 1, but excessive rainfall and cool fall temperatures caused the crop to mature very slowly. These conditions probably reduced the yields of some of the later maturing varieties. Yields ranged from 427 to 803 pounds of lint per acre.

Results at Stoneville on a mixed soil are presented in Table 5. This test was planted on April 19 and good stands were obtained. The test was irrigated on July 23 and relatively high yields for this soil type were obtained. Lint yields ranged from 581 to 699 pounds per acre.

The average performance of 15 varieties grown at five locations in 1974 is presented in Table 6. These data indicate that early maturity played a major role in the lint yields obtained in 1974, as the earliest maturing entries generally had the highest yields.

The average performance of ten cotton varieties at five Delta locations over a 2-year period (1973-74) is presented in Table 7.

Table 1. Results of 1974 Cotton Variety Test - Stoneville, Mississippi.*

Variety	LINT PER ACRE			Lint	Seed	Boll	FIBER PROPERTIES				
	Total	First pick	% First pick	%	index	size grams	Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
DES 2134-018	1168	1029	88	39.5	10.6	5.45	1.16	.56	19.26	7.7	4.4
DES 06-020-24	1144	1004	88	40.2	11.6	6.63	1.17	.57	19.85	7.7	4.8
Coker 220	1102	881	80	40.9	11.1	6.03	1.20	.56	20.88	6.8	4.6
Coker 310	1084	840	77	40.6	11.2	5.70	1.20	.58	18.35	6.4	4.5
Deltapine 652	1075	882	82	41.0	10.0	5.64	1.14	.54	16.99	7.5	4.2
Coker 312	1061	852	80	40.6	11.1	5.80	1.20	.57	17.79	6.3	4.7
Stoneville 213	1058	901	85	39.8	11.0	5.83	1.13	.53	17.78	6.3	4.7
DES 21326-04	1052	941	89	37.5	10.4	5.52	1.18	.54	18.67	7.0	4.4
Brycot 4	1023	865	84	39.4	11.1	5.58	1.12	.53	16.00	6.1	4.6
Stoneville 7A	1020	844	83	39.3	11.1	5.71	1.15	.54	16.21	6.2	4.5
Deltapine 45A	1018	837	82	39.4	11.3	5.73	1.12	.54	19.36	8.3	4.7
Deltapine 25	1017	817	80	40.2	10.9	5.72	1.13	.54	17.96	6.8	4.7
Deltapine 5916-65	1012	786	78	39.2	11.6	6.14	1.16	.58	20.61	9.5	5.2
Stoneville 256	980	802	82	38.9	10.9	5.70	1.14	.53	17.59	6.0	4.5
Deltapine 16	979	696	71	38.8	11.4	6.34	1.16	.57	19.48	9.5	4.6
Stoneville 151	969	748	77	38.6	11.8	5.80	1.16	.55	18.29	5.7	4.5
Delcot 277	955	837	87	38.7	12.1	6.82	1.17	.57	18.34	8.2	4.1
Lockett 4789A	868	729	84	36.5	12.4	6.50	1.10	.54	17.33	6.6	4.3
Acala 1517-70	794	626	79	36.5	12.3	5.84	1.19	.56	22.40	5.4	4.2
Stoneville 603	792	610	77	37.4	11.4	5.77	1.13	.53	17.14	7.2	4.2
C.V.	5.1	6.8									
LSD .05	59	64									

Planted: April 25, 1974
Harvested: September 24 and November 1, 1974
***Soil: Bosket very fine sandy loam**

Table 2. Results of 1974 Cotton Variety Test - Sumner, Mississippi.

Variety	LINT PER ACRE			Lint	Seed	Boll	FIBER PROPERTIES				
	Total	First pick	% First pick	%	index	size grams	Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
DES 06-020-24	1133	973	86	40.4	11.0	5.65	1.18	.58	20.36	8.5	4.5
Stoneville 213	1131	896	79	40.3	10.7	5.65	1.15	.57	18.23	7.6	4.6
Stoneville 256	1104	915	83	41.3	10.1	5.34	1.15	.56	18.44	7.3	4.8
Deltapine 5916-65	1087	861	79	40.3	9.8	5.57	1.19	.59	19.50	9.7	4.6
Coker 220	1065	850	80	39.7	11.1	5.77	1.24	.60	21.28	7.7	4.2
DES 2134-018	1062	914	86	39.7	10.4	5.24	1.18	.59	19.38	8.1	4.5
Deltapine 652	1060	837	79	42.0	9.6	5.34	1.18	.57	18.82	8.1	4.4
Coker 310	1060	859	81	40.3	10.4	5.69	1.24	.61	20.74	7.4	4.3
Stoneville 7A	1046	861	82	40.7	10.3	5.34	1.15	.54	18.00	6.8	4.7
DES 21326-04	1027	889	87	37.6	10.1	5.30	1.20	.57	20.22	7.9	4.2
Deltapine 16	1027	815	79	39.5	10.4	5.82	1.18	.58	19.66	9.1	4.5
Stoneville 151	1025	793	77	39.5	11.7	5.52	1.19	.58	20.55	7.0	4.6
Coker 312	1014	856	84	39.5	10.5	5.21	1.24	.58	20.74	7.9	4.2
Deltapine 45A	989	796	80	40.1	10.3	5.25	1.14	.58	19.36	8.9	4.4
Deltapine 25	977	713	73	40.3	10.2	5.36	1.20	.59	19.63	7.9	4.5
C.V.	6.0	6.5									
LSD .05	73	64									

Planted: April 30, 1974
Harvested: October 14 and November 7, 1974
Soil: Dundee silty loam
Planting pattern: 2 rows, 40 inches apart and 60 inch skips

Table 3. Results of 1974 Cotton Variety Test - Yazoo City, Mississippi.

Variety	LINT PER ACRE	Lint	Seed	Boll size	FIBER PROPERTIES				
					Length		Strength	Elonga-	Micro-
	Total	%	index	grams	2.5%	50%	g/tex	tion	naire
DES 2134-018	1022	40.3	10.5	5.64	1.10	.53	19.22	7.3	5.1
DES 06-020-24	1003	40.6	11.3	6.45	1.11	.55	19.72	8.2	5.2
Stoneville 7A	998	41.0	11.1	6.23	1.11	.53	18.79	6.1	5.3
Stoneville 213	993	40.9	10.8	6.44	1.10	.55	18.46	7.4	5.4
Stoneville 256	938	41.0	10.6	5.95	1.13	.55	17.11	6.3	5.2
Coker 312	925	41.3	11.6	6.18	1.18	.56	19.36	6.8	5.3
Deltapine 45A	914	39.2	11.7	6.16	1.10	.55	19.11	8.0	5.2
Coker 310	913	41.8	11.7	6.59	1.14	.54	19.11	6.8	5.2
Deltapine 25	897	40.8	10.7	5.86	1.13	.56	19.01	7.4	5.2
Stoneville 151	878	40.2	12.1	5.83	1.13	.54	20.30	6.3	5.3
Coker 220	872	41.1	11.9	6.95	1.13	.56	19.30	7.0	5.1
Deltapine 5916-65	856	39.9	11.4	6.08	1.14	.58	19.69	9.0	5.4
Deltapine 16	832	40.6	11.1	6.76	1.10	.54	18.58	8.9	5.4
DES 21326-04	800	38.4	10.6	5.88	1.14	.54	19.44	6.6	4.8
Deltapine 652	789	42.0	10.3	5.86	1.09	.53	19.31	7.8	5.1
C.V.	10.9								
LSD .05	114								

Planted: April 18, 1974
Harvested: October 22, 1974
Soil: Sandy loam

Table 4. Results of 1974 Cotton Variety Test - Tunica, Mississippi.

Variety	LINT PER ACRE			Lint	Seed	Boll size	FIBER PROPERTIES				
		First	% First				Length		Strength	Elonga-	Micro-
	Total	pick	pick	%	index	grams	2.5%	50%	g/tex	tion	naire
DES 06-020-24	803	666	83	38.4	11.8	5.98	1.21	.59	21.00	7.9	4.6
Stoneville 256	787	642	81	38.3	11.1	5.52	1.19	.57	18.11	6.0	4.7
Stoneville 213	752	605	80	37.2	11.2	5.48	1.21	.58	18.92	7.2	4.6
DES 2134-018	731	586	80	37.6	10.9	5.22	1.20	.59	18.65	7.2	4.5
Brycot 4	726	560	77	36.6	11.5	5.28	1.18	.56	18.05	6.0	4.8
Delcot 277	722	543	75	37.0	12.5	6.22	1.25	.61	20.59	8.6	4.1
DES 21326-04	719	616	86	36.1	10.3	5.23	1.26	.60	20.51	6.9	4.2
Stoneville 7A	719	573	80	37.6	10.9	5.25	1.18	.55	17.44	6.1	4.6
Stoneville 151	719	544	76	37.2	12.4	5.25	1.22	.58	19.92	6.4	4.5
Coker 220	715	597	83	38.4	11.3	5.69	1.23	.58	19.33	7.1	4.2
Deltapine 652	713	544	76	39.2	9.8	4.93	1.19	.55	18.43	6.6	4.2
Deltapine 5916-65	711	549	77	37.6	10.3	5.25	1.23	.61	19.88	8.9	4.7
Coker 310	685	572	83	38.1	10.7	5.02	1.27	.58	19.72	7.4	4.3
Deltapine 16	681	521	76	37.6	10.7	5.35	1.23	.58	19.15	9.2	4.4
Deltapine 25	645	462	72	38.5	10.5	4.91	1.21	.58	20.38	7.9	4.5
Coker 312	636	538	84	38.6	10.5	4.90	1.26	.60	21.42	7.0	4.4
Acala 1517-70	634	523	82	34.2	13.5	6.03	1.25	.61	23.31	6.1	4.4
Deltapine 45A	594	466	78	35.9	11.2	5.25	1.16	.57	19.51	8.2	4.4
Stoneville 603	541	416	77	35.3	11.8	5.73	1.17	.55	18.72	7.4	4.6
Lockett 4789A	427	357	84	34.3	12.0	5.93	1.17	.58	19.34	6.6	4.0
C.V.	15.3	14.5									
LSD .05	118	119									

Planted: May 1, 1974
Harvested: October 17 and December 4, 1974
Soil: Sandy loam

Table 5. Results of 1974 Cotton Variety Test - Stoneville, Mississippi.

Variety	LINT PER ACRE			Lint	Seed	Boll	FIBER PROPERTIES				
		First	% First			size	Length		Strength	Elonga-	Micro-
	Total	pick	pick	%	index	grams	2.5%	50%	g/tex	tion	naire
Stoneville 151	699	598	85	39.1	11.5	5.45	1.18	.57	20.04	5.8	4.8
DES 06-020-24	689	617	89	39.6	11.1	5.40	1.21	.59	20.78	7.4	4.6
Coker 220	687	586	85	40.1	10.9	5.58	1.23	.59	18.94	6.4	4.7
Stoneville 256	675	606	90	39.3	10.5	5.46	1.19	.57	19.04	6.1	4.7
Deltapine 16	657	542	82	38.2	11.7	5.58	1.20	.58	18.90	8.1	4.8
Deltapine 25	655	577	88	40.4	10.9	5.25	1.17	.57	19.65	7.2	4.9
Stoneville 7A	642	576	90	38.9	10.7	5.42	1.18	.56	19.04	6.1	4.6
Deltapine 5916-65	634	552	87	39.0	10.7	5.67	1.18	.58	19.66	8.3	5.2
DES 2134-018	631	576	91	39.0	10.5	4.78	1.16	.55	18.31	7.3	4.6
Coker 312	624	554	89	39.9	11.2	5.40	1.24	.58	19.33	7.3	4.9
Deltapine 45A	612	531	87	38.6	10.9	5.46	1.12	.55	18.57	7.7	4.9
Coker 310	609	522	86	39.1	11.0	5.35	1.23	.58	19.28	6.3	4.6
Stoneville 213	608	543	89	38.9	10.7	5.25	1.17	.55	18.13	6.3	4.8
DES 21326-04	596	534	90	36.3	10.1	4.70	1.22	.56	19.16	6.2	4.3
Deltapine 652	581	501	86	40.7	10.2	5.50	1.16	.55	18.30	7.3	4.5
C.V.	10.0	10.3									
LSD .05	74	67									

Planted: April 19, 1974
Harvested: October 4 and November 4, 1974
Soil: Mixed soil

Table 6. Average Performance of 15 Cotton Varieties at 5 Delta Locations in 1974.

Variety	LINT PER ACRE		Lint	Seed	Boll	FIBER PROPERTIES				
		%First			size	Length		Strength	Elonga-	Micro-
	Total	pick*	%	index	grams	2.5%	50%	g/tex	tion	naire
DES 06-020-24	954	86.5	39.8	11.4	6.02	1.18	.58	20.34	7.9	4.7
DES 2134-018	923	86.2	39.2	10.6	5.27	1.16	.56	18.96	7.5	4.6
Stoneville 213	908	83.2	39.4	10.9	5.73	1.15	.56	18.30	7.0	4.8
Stoneville 256	897	84.0	39.8	10.6	5.59	1.16	.56	18.06	6.3	4.8
Coker 220	888	82.0	40.0	11.3	6.00	1.21	.58	19.95	7.0	4.6
Stoneville 7A	885	83.7	39.5	10.8	5.59	1.15	.54	17.90	6.3	4.7
Coker 310	870	81.7	40.0	11.0	5.67	1.22	.58	19.44	6.9	4.6
Deltapine 5916-65	860	80.2	39.2	10.8	5.74	1.18	.59	19.87	9.1	5.0
Stoneville 151	858	78.7	38.9	11.9	5.57	1.18	.56	19.82	6.2	4.7
Coker 312	852	84.0	40.0	11.0	5.50	1.22	.58	19.73	7.0	4.7
Deltapine 652	844	80.7	41.0	10.0	5.45	1.15	.55	18.37	7.5	4.5
DES 21326-04	839	88.0	37.2	10.3	5.33	1.20	.56	19.60	6.9	4.4
Deltapine 25	838	78.2	40.0	10.6	5.42	1.17	.57	19.33	7.4	4.8
Deltapine 16	835	77.0	38.9	11.1	5.97	1.17	.57	19.15	9.0	4.7
Deltapine 45A	825	81.7	38.6	11.1	5.57	1.13	.56	19.18	8.2	4.7

*** % first pick is an average of 4 locations.**

Table 7. Average Performance of 10 Cotton Varieties at 5 Delta Locations for a 2-Year Period (1973-74).

Variety	LINT PER ACRE					FIBER PROPERTIES			
	Total	% First pick*	Lint %	Seed index	Boll size grams	Length 2.5%	Strength g/tex	Elongation	Micronaire
Stoneville 213	967	86	39.0	11.2	5.66	1.14	18.56	7.0	4.8
Deltapine 5916-65	941	84	39.4	10.8	5.73	1.17	19.83	8.8	5.1
Stoneville 7A	940	85	39.1	10.8	5.60	1.15	18.25	6.0	4.9
DES 21326-04	933	90	37.2	10.6	5.25	1.19	19.62	6.7	4.5
Deltapine 652	917	84	40.8	10.2	5.44	1.15	18.86	7.3	4.6
Coker 310	907	84	39.9	11.2	5.54	1.22	19.77	6.8	4.7
Deltapine 25	903	81	40.1	10.8	5.53	1.16	19.45	7.2	4.9
Coker 312	902	86	39.7	11.3	5.51	1.22	19.79	6.7	4.7
Deltapine 16	899	82	38.6	11.3	5.93	1.17	19.47	8.8	4.7
Deltapine 45A	892	84	38.7	11.5	5.77	1.13	19.25	8.0	4.8

*** % first pick is an average of 7 environments.**

Hill Section locations

Cotton variety tests were conducted at six locations in the Hill Section of Mississippi; Mississippi State, Raymond, Verona, Holly Springs, Pontotoc, and Brooksville.

Eighteen varieties were included in the tests at all locations. Yield data were based on the weight of cotton harvested from one-row plots. Each entry was replicated either six or eight times. Lint percentage and fiber property determinations were obtained from hand-picked samples. Fiber property data were determined by the Cotton Fiber Laboratory, Delta Branch Experiment Station, Stoneville, Mississippi.

Performance data of varieties tested at individual locations are presented in Tables 8 through 13. The average performance of 18 varieties grown at six locations in the Hill Section is presented in Table 14.

Wet Spring weather resulted in late planting at most locations and cool, wet fall weather resulted in a late maturing crop. The data from some locations are variable, which is partially due to late plantings and extremes in the weather that prevailed throughout the season.

Results at Mississippi State on a Leeper fine sandy loam soil are presented in Table 8. This test was harvested only once on October 23 and yields ranged from 652 to 1065 pounds of lint per acre.

Results at Raymond are presented in Table 9. This test was planted May 7 on a Grenada silt loam soil. Due to unfavorable weather conditions this test was not harvested until December 3, but lint yields were high. Lint yields ranged from 954 to 1106 pounds per acre, but significant differences in variety performance were not measured.

Table 10 shows the results of the variety test conducted on a Grenada silt loam soil at Holly Springs. This test was planted on May 10 and harvested once on November 13. Lint yields ranged from 425 to 647 pounds per acre and were good considering that on October 3 the temperature dropped to 31 degrees and frost damage was observed.

Results at Verona on a Catalpa silty clay loam soil are presented in Table 11. This test was planted on May 30, which is a late planting date for cotton. Due to the late planting date and unfavorable weather throughout the season, the lint yield of all varieties was low. The lint yields ranged from 141 to 341 pounds per acre.

The performance of varieties tested at Brooksville on a Houston clay soil are presented in Table 12. This test was also planted very late on May 31, and yields ranged from 404 to 607 pounds of lint per acre.

Results at Pontotoc on an Atwood silt loam soil are presented in Table 13. Due to excessive rain this test was planted on June 4, which is usually too late for planting cotton. Lint yields ranged from 473 to 725 pounds per acre, but due to a large amount of plot variability a significant difference between varieties was not detected.

The average performance of 18 cotton varieties tested at six locations in the Hill Section are presented in Table 14.

Table 8. Results of 1974 Cotton Variety Test at MAFES Headquarters, Mississippi State, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Dixie King III	1065	40.3	7.02	1.16	.57	21.39	8.7	4.4
Delcot 277	1003	39.2	6.48	1.22	.60	20.93	9.6	4.1
Coker 310	986	39.9	5.57	1.26	.60	22.42	8.0	4.2
Hancock	984	40.7	6.25	1.12	.51	18.82	8.1	4.1
Stoneville 603	941	40.0	5.60	1.18	.54	19.62	7.6	4.7
Coker 312	936	40.7	5.33	1.27	.58	22.85	7.8	4.4
DES 2134-13	906	39.7	4.96	1.25	.58	21.39	9.0	4.0
Coker 220	904	41.2	5.69	1.21	.56	20.36	9.1	4.5
Stoneville 213	891	40.4	5.26	1.18	.57	20.58	9.3	4.5
Stoneville 7A	889	40.8	5.90	1.18	.56	19.40	7.0	4.8
Deltapine 25	879	40.9	5.36	1.19	.58	20.94	8.6	4.7
McNair 511	848	39.4	4.60	1.15	.55	20.80	9.2	4.4
Deltapine 652	830	41.7	5.07	1.19	.54	21.53	9.2	4.3
Hybee 100A	830	39.4	6.22	1.20	.55	20.07	8.1	4.4
Deltapine 16	824	39.1	5.39	1.19	.57	20.87	10.2	4.4
Deltapine 45A	772	39.8	5.30	1.16	.57	20.28	9.6	4.5
Hybee 200A	736	38.8	5.83	1.21	.58	20.00	8.9	4.7
McNair 612	652	41.5	5.03	1.15	.52	20.87	7.7	4.4
C.V.	15.5							
LSD .05	164							

Planted: May 9, 1974
Harvested: October 23, 1974
Soil: Leeper fine sandy loam

Table 9. Results of 1974 Cotton Variety Test at Brown Loam Branch Experiment Station, Raymond, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Coker 220	1106	40.3	5.66	1.15	.55	18.46	9.4	4.8
Coker 312	1092	39.4	5.34	1.17	.57	20.42	7.8	4.7
Stoneville 213	1067	39.4	6.08	1.15	.56	19.04	9.6	5.0
McNair 511	1064	39.3	5.62	1.15	.55	19.41	8.5	4.8
Stoneville 7A	1044	38.6	5.89	1.10	.52	18.16	7.6	4.8
Hancock	1037	39.6	6.84	1.08	.51	19.27	9.2	4.6
Hybee 100A	1036	39.2	5.69	1.12	.52	19.12	9.4	4.9
DES 2134-13	1016	38.7	5.43	1.17	.56	19.70	9.1	4.7
Coker 310	1014	39.0	6.03	1.16	.52	19.19	9.8	5.1
Delcot 277	1011	39.2	5.92	1.11	.54	18.75	9.6	4.7
Hybee 200A	1006	39.6	5.30	1.13	.54	20.22	9.2	5.0
McNair 612	1005	39.5	5.54	1.10	.54	19.12	8.7	5.0
Deltapine 16	993	39.7	6.10	1.12	.52	18.25	10.8	4.8
Stoneville 603	991	38.4	6.17	1.12	.54	18.16	8.0	4.9
Deltapine 25	986	40.7	6.13	1.15	.55	19.97	8.7	4.9
Dixie King III	980	39.0	5.80	1.12	.55	19.63	8.3	4.6
Deltapine 652	976	39.3	5.79	1.11	.52	19.56	8.9	4.7
Deltapine 45A	954	39.6	5.92	1.12	.56	19.04	9.2	5.0
C.V.	10.1							
LSD .05	N.S.							

Planted: May 7, 1974
Harvested: December 3, 1974
Soil: Grenada silt loam

Table 10. Results of 1974 Cotton Variety Test at North Mississippi Branch Experiment Station, Holly Springs, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Hancock	647	39.5	5.91	1.11	.54	17.24	8.4	4.0
Delcot 277	639	38.8	6.25	1.19	.59	20.35	10.6	3.8
Stoneville 213	635	39.4	5.23	1.16	.55	18.72	9.1	4.2
Stoneville 603	603	39.1	5.15	1.16	.55	18.35	8.3	4.3
DES 2134-13	567	38.8	4.58	1.21	.55	19.38	9.7	3.7
Hybee 100A	562	38.9	5.91	1.16	.56	18.79	9.9	4.3
Dixie King III	559	39.8	5.91	1.13	.55	19.31	8.7	3.9
Stoneville 7A	558	39.8	5.23	1.18	.57	18.39	7.8	4.1
Hybee 200A	556	37.8	5.05	1.17	.56	18.20	10.6	4.2
Coker 220	547	40.8	5.29	1.22	.56	19.90	9.0	3.9
Coker 310	525	39.9	4.98	1.22	.60	19.90	8.2	3.8
Deltapine 16	503	38.5	5.25	1.18	.55	19.90	10.6	4.2
Deltapine 652	494	40.7	4.88	1.15	.52	18.87	9.9	4.0
Coker 312	494	40.1	5.07	1.22	.58	20.20	8.8	4.0
McNair 511	470	38.8	4.50	1.13	.54	20.42	9.9	4.1
Deltapine 25	469	40.9	4.84	1.13	.55	19.83	10.1	4.2
McNair 612	448	40.8	5.06	1.16	.57	19.02	8.5	4.4
Deltapine 45A	425	37.6	4.81	1.14	.57	19.31	10.7	4.0
C.V.	12.0							
LSD .05	66							

Planted: May 10, 1974
Harvested: November 13, 1974
Soil: Grenada silt loam

Table 11. Results of 1974 Cotton Variety Test at Northeast Branch Experiment Station, Verona, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Hancock	341	37.8	5.70	1.13	.54	19.26	8.9	3.8
Coker 312	312	38.5	4.53	1.21	.56	20.80	9.5	3.6
Coker 220	307	37.7	5.16	1.23	.58	20.29	9.2	3.5
Hybee 100A	277	36.3	4.57	1.18	.56	19.03	10.3	3.9
Deltapine 16	275	36.1	4.66	1.20	.56	19.77	11.1	3.5
DES 2134-13	265	34.5	4.00	1.21	.54	21.53	10.0	3.2
Coker 310	250	36.4	4.94	1.22	.55	20.73	9.9	3.3
Delcot 277	248	35.3	4.64	1.22	.59	21.02	10.9	3.4
Deltapine 652	234	38.0	4.44	1.18	.57	19.91	10.3	3.6
Hybee 200A	226	35.1	4.19	1.15	.54	19.62	10.9	3.4
Dixie King III	225	36.0	4.86	1.15	.56	19.84	9.8	3.8
Stoneville 603	215	36.1	4.06	1.16	.55	19.48	9.0	4.1
Stoneville 7A	211	35.2	4.51	1.16	.54	19.55	8.4	3.4
Deltapine 25	204	34.1	4.53	1.19	.59	21.61	9.7	3.5
Deltapine 45A	204	33.9	4.40	1.15	.54	20.80	10.8	3.2
Stoneville 213	197	34.9	4.58	1.15	.54	19.11	8.6	3.6
McNair 612	182	37.5	4.47	1.16	.55	19.77	9.7	3.7
McNair 511	141	34.5	4.57	1.13	.52	20.80	10.7	3.5
C.V.	25							
LSD .05	70							

Planted: May 30, 1974
Harvested: November 11, 1974
Soil: Catalpa silty clay loam

Table 12. Results of 1974 Cotton Variety Test at Black Belt Branch Experiment Station, Brooksville, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Hybee 200A	607	36.4	6.09	1.23	.60	19.13	10.3	4.1
Deltapine 16	590	36.7	6.13	1.23	.60	18.83	10.6	4.2
Deltapine 652	525	37.8	5.57	1.21	.57	20.00	9.2	4.1
Hybee 100A	504	36.7	6.68	1.18	.57	18.76	9.0	4.3
Hancock	497	36.7	6.72	1.14	.56	18.32	7.8	4.2
Coker 312	495	38.5	5.84	1.25	.58	21.60	8.5	3.7
DES 2134-13	491	35.0	5.46	1.25	.59	21.24	8.9	4.0
Dixie King III	488	36.3	7.17	1.19	.56	20.37	8.4	4.0
Coker 310	487	37.3	6.84	1.26	.57	20.95	8.3	3.6
Coker 220	486	36.9	6.83	1.24	.59	21.24	8.8	3.6
Deltapine 25	484	37.5	5.62	1.22	.60	20.44	8.5	4.3
McNair 612	476	38.5	6.00	1.22	.61	20.29	8.0	4.5
Stoneville 603	475	36.3	5.64	1.22	.58	20.29	7.2	4.4
Delcot 277	471	35.6	6.28	1.24	.59	20.66	10.7	3.6
Stoneville 213	438	36.1	6.57	1.19	.56	18.98	7.5	4.3
Deltapine 45A	437	36.3	6.16	1.20	.60	20.80	9.2	4.1
McNair 511	405	35.9	6.49	1.18	.57	20.44	9.0	4.0
Stoneville 7A	404	35.8	6.56	1.21	.58	19.42	7.0	4.3
C.V.	13.4							
LSD .05	75							

Planted: May 31, 1974
Harvested: December 17, 1974
Soil: Houston clay

Table 13. Results of 1974 Cotton Variety Test at Pontotoc Ridge - Flatwoods Branch Experiment Station, Pontotoc, MS.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elongation	Micronaire
	Total	%	grams	2.5%	50%	g/tex		
Hancock	725	37.7	6.90	1.14	.57	18.96	10.0	4.1
Coker 312	703	38.2	6.60	1.15	.54	19.26	10.2	3.8
Deltapine 16	676	37.5	5.60	1.23	.59	21.09	9.3	3.8
Coker 220	666	39.3	5.82	1.18	.55	19.33	10.7	3.8
Hybee 200A	661	37.1	5.86	1.16	.53	19.62	11.0	3.8
Stoneville 213	642	37.4	5.90	1.15	.55	19.57	11.0	4.0
McNair 612	630	37.7	5.97	1.15	.56	20.21	9.9	4.0
Dixie King III	626	37.6	6.70	1.15	.56	19.25	9.7	3.8
Stoneville 603	626	39.7	6.20	1.20	.57	20.06	9.7	4.0
Deltapine 652	626	38.1	5.48	1.13	.55	19.26	9.8	4.0
Hybee 100A	604	37.3	6.06	1.14	.54	18.74	10.2	4.2
Coker 310	589	36.5	6.44	1.19	.57	19.62	11.3	3.7
DES 2134-13	587	36.4	5.87	1.21	.55	20.43	10.4	3.8
Deltapine 25	493	37.0	5.29	1.15	.55	20.28	11.0	3.8
Delcot 277	478	37.2	6.27	1.17	.56	19.55	11.1	3.8
Stoneville 7A	478	37.3	5.82	1.15	.53	19.70	10.2	3.9
McNair 511	475	35.5	5.28	1.17	.55	21.31	10.6	3.7
Deltapine 45A	473	37.4	6.12	1.16	.56	20.43	10.1	4.0
LSD .05	N.S.							
C.V.	30							

Planted: June 4, 1974
Harvested: January 22, 1975
Soil: Atwood silt loam

Table 14. Average Performance of 18 Cotton Varieties Tested at Six Locations in the Hill Section in 1974.

Variety	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elonga-	Micro-
	Total	%	grams	2.5%	50%	g/tex	tion	naire
Hancock	705	38.7	6.38	1.12	.54	18.64	8.7	4.1
Coker 312	672	39.2	5.45	1.21	.57	20.85	8.7	4.0
Coker 220	669	39.4	5.74	1.21	.56	19.93	9.4	4.0
Dixie King III	657	38.1	6.24	1.15	.56	19.96	8.9	4.1
Stoneville 213	645	37.9	5.60	1.16	.55	19.33	9.2	4.3
Deltapine 16	643	37.9	5.52	1.19	.56	19.78	10.4	4.1
Stoneville 603	642	38.3	5.47	1.17	.55	19.32	8.3	4.4
Delcot 277	642	37.5	5.97	1.19	.59	20.21	10.4	3.9
Coker 310	642	38.2	5.80	1.22	.57	20.47	9.2	4.0
DES 2134-13	639	37.2	5.05	1.22	.56	20.61	9.5	3.9
Hybee 100A	635	38.0	5.85	1.16	.55	19.08	9.5	4.3
Hybee 200A	632	37.5	5.38	1.17	.56	19.46	10.2	4.2
Deltapine 652	614	39.3	5.20	1.16	.54	19.85	9.5	4.2
Stoneville 7A	597	37.9	5.65	1.16	.55	19.10	8.0	4.2
Deltapine 25	586	38.5	5.29	1.17	.57	20.51	9.4	4.2
McNair 511	567	37.2	5.17	1.15	.55	20.53	9.6	4.1
McNair 612	565	39.2	5.34	1.16	.56	19.88	8.7	4.3
Deltapine 45A	544	37.4	5.45	1.15	.57	20.11	9.9	4.1

E8

SPECIFIC INPUTS AND PRICES ASSOCIATED WITH COTTON PRODUCTION COSTS FOR THE MISSISSIPPI DELTA, 1975

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FOREWORD

This publication was prepared for farmers and other individuals already familiar with the production of cotton in the Mississippi Delta. The primary purpose of the manuscript is to report detailed production costs expected to be appropriate for the 1975 crop year. It supplements Experiment Station Bulletin 834 [3] entitled "Crop Budgets and Planning Data for Major Farm Enterprises in the Louisiana-Mississippi Delta, 1975."

SPECIFIC INPUTS AND PRICES ASSOCIATED WITH COTTON PRODUCTION COSTS FOR THE MISSISSIPPI DELTA, 1975

By

D. W. Parvin, Jr., J. M. Anderson, F. T. Cooke, Jr., A. M. Heagler, and S. M. Toney*

INTRODUCTION

The production of cotton is an important economic activity in the Mississippi Delta[1/]. Approximately 1,134,000 bales were harvested from 1,145,000 acres of land in 1974. In 1973, the same area produced 1,319,800 bales on 898,700 acres. [4]

All farm activity should be preceded by some planning prior to planting. During preplant planning, the producer analyzes the information available to him and makes certain decisions. Generally, the producer has in mind some "expected price and yield" for cotton, and the price and quantity of required inputs. Additionally, he has expectations regarding the price and yield, and costs of producing competing crops. On the basis of these expectations and his

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[1/] The Mississippi Delta includes the following 12 counties: Bolivar, Coahoma, Humphreys, Issaquena, LeFlore, Quitman, Sharkey, Sunflower, Tallahatchie, Tunica, Washington, and Yazoo.

evaluation of present and expected inventory of land, labor, machinery, and operating capital, the producer decides how to organize his farm. [5]

This publication has been prepared to report estimated production costs for cotton in the Mississippi Delta for the 1975 crop year. These costs are then used to develop estimated returns above specified costs for selected yields and prices.

PROCEDURE

The basic technique utilized in this report is budgeting[2/]. Data on practices were collected during July and August, 1974. Tractor and equipment prices used in this report were obtained from retail dealers in the Mississippi Delta during late November and December, 1974. Prices of other agricultural inputs were obtained by interviewing the major suppliers of agricultural inputs in the Mississippi Delta. All prices utilized in this report are those expected[3/] to prevail in the Spring of 1975.

[2/] Budgeting is the costing of an enterprise on an operation by operation basis. See [1] and [2] for additional technical information concerning budgeting. See [3] for specific information on machinery costs and related assumptions such as rate of depreciation, repairs, interest rates, etc. used in this report.

[3/] The expected prices are late 1974 prices adjusted by the authors after consultation with individuals known to be familiar with prices in their respective fields.

BUDGETS

Estimated Costs Per Acre By Operation

Estimated costs per acre, detailed by operation are presented in Tables 1-24[4/]. Production practices are those occurring most frequently in the Delta. The fourth column in Tables 1-24 identified as "TR" indicates tractor size. Tractor size 1 represents a 80-90 DBHP[5/] tractor used 1,000 hours each year. Tractor size 3 represents a 100-110 DBHP tractor with the same number of hours of annual use.

Equipment costs reflect varying hours of annual use ranging from 100 for cotton planters to 350 for high clearance sprayers. Cotton pickers were assumed to be used 200 hours each year. All labor is charged at a rate of $2.30 per hour. However, labor is divided into common, operator and special labor. Special labor refers to driver time for self propelled equipment, i.e. cotton pickers and high clearance sprayers. Operator labor denotes tractor driver time, and common labor refers to all other labor.

Insecticide, herbicide and defoliant use is expressed in pounds of active ingredients per acre except "toxaphene plus methyl parathion" which is expressed in pints. One pint of "toxaphene plus methyl parathion" contains .75 pounds of toxaphene and .375 pounds of methyl parathion. The usual rate per acre is 2.67 pints or 2 pounds of toxaphene and 1 pound of methyl parathion. Fertilizer is reported as hundredweight of material as applied. Therefore, 100 pounds of ammonia nitrate equals 33 pounds of nitrogen.

[4/] For convenience, all tables are placed after the text. Table 1-24 appear on pages 6-53.

[5/] Drawbar horsepower - Nebraska rating.

The column entitled "TIMES OVER" generally indicates the number of trips over the field. However, these budgets were generated by a computerized budget writer[6] utilizing stored files of information and the "TIMES OVER" feature is also used as a multiplier or constant to adjust stored information. This is especially true for the 2x1 planting pattern budgets where "TIMES OVER" generally is used as a multiplier to adjust for the reduced row feed of cotton on a land acre.

The columns that report miscellaneous inputs list custom operations and those operations such as hauling and ginning which are not divided into tractor, equipment, and labor charges or into direct and fixed cost. Hauling and ginning are the only operations in these budgets assumed to be proportional to yield. In Tables 1-24 operations requiring more than one line to describe are indented and followed by a summary line.

Estimated Costs and Net Returns

Tables 25-48 (pg. 54-77) report estimated costs and net returns per acre for 1975. Costs are summarized as direct expense and fixed expense. Special equipment refers to self-propelled equipment. Equipment denotes towed equipment. Income figures presented assume a $.40 per pound price for cotton lint and a $.05 per pound price for cotton seed.

The last line entitled "NET RETURN" is calculated by subtracting total specified expense from total income. Consequently, it should strictly be referred to as net returns above specified cost. It reflects net returns to management, land, and general farm overhead.

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[6] The addition routine utilized by the budget writer can generate totals which appear to be one or two cents in error.

Table 49 (pg. 78) summarizes the information presented in Tables 25-48. Specified production costs range from $201 to $295 per acre. Returns above specified costs range from a negative $20 per acre for high input practices, and 6 row equipment, for solid cotton on clay soil to $121 per acre for more efficient input practices with limited seedbed preparation, and 8 row equipment, for 2x1 planting pattern on sandy soil.

DISCUSSION

Returns to be expected from the production of cotton are related to production costs, yields, and prices received. This bulletin presents estimated production costs for the 1975 crop year. Producers are encouraged to use their own historical yield data and their latest information on the expected price of cotton for calculating their particular estimates of returns.

Table 1. Estimated cost per acre by operation, solid cotton, sandy soil, high input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.39
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 15 FT	ACRE	7	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	7	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCORP 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.47	8.2500	12.13	.00	.0000	.00	12.13
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			12.13			.00	14.17
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	5.9500	2.86	.00	.0000	.00	2.86
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	[illegible]	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	[illegible]	[illegible]	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			14.67			.00	18.16
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.39	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.39
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.95	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.95	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
HAND WEED CONTROL	HOUR	6	0	1.00	[illegible]	[illegible]	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	5	0	1.00	.00	[illegible]	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89

LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			6.76			.00	8.98
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	602.00	.0114	6.83	6.83
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	150.00	.0114	1.70	1.70
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	752.00	.0800	60.16	60.16
					3.32	13.86	7.08	20.94	4.76	26.74	43.07	69.82	8.63	3.32	1.44	19.85	7.63	3.32	30.80			78.23			99.22	298.01

Table 2. Estimated cost per acre by operation, solid cotton, sandy soil, high input practices, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIALS QUAN	MATERIALS PRICE	MATERIALS COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.47	8.2500	12.13	.00	.0000	.00	12.13
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			12.13			.00	13.80
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	7.28
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	5.9500	2.86	.00	.0000	.00	2.86
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			14.62			.00	17.25
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51

LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			6.76			.00	8.60
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.19	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	602.00	.0114	6.83	6.83
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	150.00	.0114	1.70	1.70
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	752.00	.0800	60.16	60.16
					2.80	11.65	5.95	17.60	4.24	26.87	43.30	70.17	8.56	2.80	1.44	19.70	6.44	3.32	29.46			78.23			88.22	283.69

Table 3. Estimated cost per acre by operation, solid cotton, sandy soil, usual input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.22	8.2500	10.06	.00	.0000	.00	10.06
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			10.07			.00	12.11
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
KARMEX (OL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.0700	1.62	.00	.0000	.00	1.62
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.70	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			13.39			.00	16.93
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.07	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIORIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.07	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.59
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	3.2000	.64	.00	.0000	.00	.64
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.63			.00	3.85
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			6.76			.00	8.98

TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	7.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	8.8000	3.30	.00	.0000	.00	3.30
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			10.99			2.40	13.46
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	7.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	584.00	.0114	6.63	6.63
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	146.00	.0114	1.66	1.66
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	730.00	.0800	58.40	58.40
					3.08	12.83	6.56	19.39	4.52	26.26	42.14	68.41	9.59	3.08	1.44	22.06	7.08	3.32	37.46			69.77			83.21	273.23

Table 4. Estimated cost per acre by operation, solid cotton, sandy soil, usual input practices, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.22	8.2500	10.06	.00	.0000	.00	10.06
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.29			10.07			.00	11.74
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.29	.00	.0000	.00	.00	.0000	.00	2.28
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.0700	1.62	.00	.0000	.00	1.62
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			13.39			.00	16.01
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			3.37			.00	5.21
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	3.2000	.64	.00	.0000	.00	.64
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.63			.00	3.47
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
INSECT SCOUTING	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			6.76			.00	8.60

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   TOX + METHYL PARA      PT   7  0  2.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   5.34   .9600    5.13     .00   .0000    .00     5.13
   FUNDAL                 LB   7  0  2.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .25  8.8000    2.20     .00   .0000    .00     2.20
   APPLY INS GROUND X2  ACRE   7  1  2.00   .00    .00    .00    .00   .18    .90    .68   1.58   .00   .00   .16    .00    .00    .37    .37    .00   .0000     .00     .00   .0000    .00     1.95
                                            .00    .00    .00    .00   .18    .90    .68   1.58   .00   .00   .16    .00    .00    .37    .37                  7.33                     .00     9.27
   TOX + METHYL PARA      PT   8  0  3.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   8.01   .9600    7.69     .00   .0000    .00     7.69
   FUNDAL                 LB   8  0  3.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .38  8.8000    3.30     .00   .0000    .00     3.30
   COMMON LABOR         HOUR   8  0  3.00   .00    .00    .00    .00   .00    .00    .00    .00   .03   .00   .00    .07    .00    .00    .07    .00   .0000     .00     .00   .0000    .00      .07
   APPLY INS AIR X3     ACRE   8  0  3.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00    3.00   .8000   2.40     2.40
                                            .00    .00    .00    .00   .00    .00    .00    .00   .03   .00   .00    .07    .00    .00    .07                 10.99                    2.40    13.46
   TOX + METHYL PARA      PT   9  0  2.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   5.34   .9600    5.13     .00   .0000    .00     5.13
   COMMON LABOR         HOUR   9  0  2.00   .00    .00    .00    .00   .00    .00    .00    .00   .02   .00   .00    .05    .00    .00    .05    .00   .0000     .00     .00   .0000    .00      .05
   APPLY INS AIR X2     ACRE   9  0  2.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00    2.00   .8000   1.60     1.60
                                            .00    .00    .00    .00   .00    .00    .00    .00   .02   .00   .00    .05    .00    .00    .05                  5.13                    1.60     6.77
   DEFOLIANT              LB   9  0  1.10   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   1.43  1.8300    2.62     .00   .0000    .00     2.62
   DEFOLIATE - AIR      ACRE   9  0  1.10   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00    1.10  1.5000   1.65     1.65
                                            .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00                  2.62                    1.65     4.27
 1ST PICK 2 ROW         ACRE  10  3  1.00   .00    .00    .00    .00   .79  13.67  21.76  35.43   .79   .00   .79   1.87    .00   1.82   3.63    .00   .0000     .00     .00   .0000    .00    39.06
 HAUL                     LB  10  0  1.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00  584.00   .0114   6.63     6.63
 2ND PICK 2 ROW         ACRE  10  3   .70   .00    .00    .00    .00   .41   7.15  11.37  18.52   .41   .00   .41    .95    .00    .95   1.90    .00   .0000     .00     .00   .0000    .00    20.42
 HAUL                     LB  10  0  1.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00  146.00   .0114   1.66     1.66
 GIN                      LB  10  0  1.00   .00    .00    .00    .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000     .00  730.00   .0800  58.40    58.40
                                           2.56  10.63   5.43  16.05  4.00  26.39  42.37  68.76  9.52  2.56  1.44  21.91   5.89   3.32  31.12                 69.77                   83.21   268.91
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Table 5. Estimated cost per acre by operation, solid cotton, sandy soil, more efficient input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME XI/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.27	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	8.2500	9.07	.00	.0000	.00	9.07
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.18	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			9.08			.00	11.12
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.90	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	5.9500	2.86	.00	.0000	.00	2.86
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.45	.00	.91			14.62			.00	18.16
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIORIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
HAND WEED CONTROL	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	6.7600	4.53	.00	.0000	.00	4.53
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			4.53			.00	6.75
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
										.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64

FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.19			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.67
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.67			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.87	.00	1.87	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	600.00	.0114	6.81	6.81
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.47
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	150.00	.0114	1.70	1.70
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	750.00	.0800	60.00	60.00
					3.38	14.11	7.21	21.33	4.82	25.61	40.98	66.60	7.58	3.38	1.44	17.44	7.77	3.32	28.52			59.63			84.24	260.37

Table 6. Estimated cost per acre by operation, solid cotton, sandy soil, more efficient input practices, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	8.2500	9.07	.00	.0000	.00	9.07
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.79	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			9.08			.00	10.75
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.29
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	5.9500	2.86	.00	.0000	.00	2.86
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			14.62			.00	17.25
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APRLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + ROST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + ROST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	6.7600	4.53	.00	.0000	.00	4.53
CULT + ROST LATE	ACRE	7	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			4.53			.00	6.37
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APRLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.08	[illegible]	[illegible]	.18	.18			3.66			.00	4.64

```
  FUNDAL              LB    8  0  1.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .13  8.9000   1.10     .00   .0000    .00    1.10
  APPLY INS GROUND    ACRE  8  1  1.00   .00   .00   .00   .00   .08    .45    .34    .79   .00   .00   .08    .00   .00   .18    .19    .00   .0000    .00     .00   .0000    .00     .97
                                         .00   .00   .00   .00   .08    .45    .34    .79   .00   .00   .08    .00   .00   .18    .19                 3.66                     .00    4.64
  TOX + METHYL PARA   PT    8  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00   5.34   .9600   5.13     .00   .0000    .00    5.13
  FUNDAL              LB    8  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .25  8.8000   2.20     .00   .0000    .00    2.20
  COMMON LABOR        HOUR  8  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .02   .00   .00    .05   .00   .00    .05    .00   .0000    .00     .00   .0000    .00     .05
  APPLY INS AIR X2    ACRE  8  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00    2.00   .8000   1.60    1.60
                                         .00   .00   .00   .00   .00    .00    .00    .00   .02   .00   .00    .05   .00   .00    .05                 7.33                    1.60    8.97
  TOX + METHYL PARA   PT    9  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00   5.34   .9600   5.13     .00   .0000    .00    5.13
  COMMON LABOR        HOUR  9  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .02   .00   .00    .05   .00   .00    .05    .00   .0000    .00     .00   .0000    .00     .05
  APPLY INS AIR X2    ACRE  9  0  2.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00    2.00   .8000   1.60    1.60
                                         .00   .00   .00   .00   .00    .00    .00    .00   .02   .00   .00    .05   .00   .00    .05                 5.13                    1.60    6.77
  DEFOLIANT           LB    9  0  1.10   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00   1.43  1.8300   2.62     .00   .0000    .00    2.62
  DEFOLIATE - AIR     ACRE  9  0  1.10   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00    1.10  1.5000   1.65    1.65
                                         .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00                 2.62                    1.65    4.27
1ST PICK 2 ROW        ACRE 10  3  1.00   .00   .00   .00   .00   .79  13.67  21.76  35.43   .79   .00   .79   1.82   .00  1.92   3.63    .00   .0000    .00     .00   .0000    .00   39.06
HAUL                  LB   10  0  1.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00  600.00   .0114   6.81    6.81
2ND PICK 2 ROW        ACRE 10  3   .70   .00   .00   .00   .00   .41   7.15  11.37  18.52   .41   .00   .41    .95   .00   .95   1.90    .00   .0000    .00     .00   .0000    .00   20.42
HAUL                  LB   10  0  1.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00  150.00   .0114   1.70    1.70
GIN                   LB   10  0  1.00   .00   .00   .00   .00   .00    .00    .00    .00   .00   .00   .00    .00   .00   .00    .00    .00   .0000    .00  750.00   .0800  60.00   60.00
                                        2.96 11.91  6.08 17.99  4.30  25.74  41.21  66.95  7.51  2.86  1.44  17.28  6.58  3.32  27.19                59.63                   84.24  255.99
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Table 7. Estimated cost per acre by operation, solid cotton, sandy soil, limited seedbed preparation, 6 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
DISK BED	ACRE	3	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	8.2500	9.07	.00	.0000	.00	9.07
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			9.08			.00	11.12
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.0700	1.62	.00	.0000	.00	1.62
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			13.39			.00	16.93
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13

					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	614.00	.0114	6.97	6.97
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	153.00	.0114	1.74	1.74
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	767.00	.0800	61.36	61.36
					2.64	11.04	5.64	16.67	4.10	24.95	39.59	64.55	7.58	2.66	1.44	17.44	6.11	3.32	26.87			53.87			85.79	247.75

Table 8. Estimated cost per acre by operation, solid cotton, sandy soil, limited seedbed preparation, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
DISK BED	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	8.2500	9.07	.00	.0000	.00	9.07
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			9.08			.00	10.75
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.0700	1.62	.00	.0000	.00	1.62
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			13.39			.00	16.01
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	7	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.08	[illegible]	.00	.18	.18			3.66			.00	4.64

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    TOX + METHYL PARA     PT   8  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00  5.34   .9600  5.13    .00  .0000    .00    5.13
    FUNDAL                LB   8  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .25  8.8000  2.20    .00  .0000    .00    2.20
    COMMON LABOR        HOUR   8  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .02  .00  .00   .05   .00   .00   .05   .00   .0000   .00    .00  .0000    .00     .05
    APPLY INS AIR X2    ACRE   8  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00   2.00  .8000   1.60    1.60
                                           .00   .00   .00   .00  .00    .00    .00    .00   .02  .00  .00   .05   .00   .00   .05                7.33                 1.60    8.97
    TOX + METHYL PARA     PT   9  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00  5.34   .9600  5.13    .00  .0000    .00    5.13
    COMMON LABOR        HOUR   9  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .02  .00  .00   .05   .00   .00   .05   .00   .0000   .00    .00  .0000    .00     .05
    APPLY INS AIR X2    ACRE   9  0  2.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00   2.00  .8000   1.60    1.60
                                           .00   .00   .00   .00  .00    .00    .00    .00   .02  .00  .00   .05   .00   .00   .05                5.13                 1.60    6.77
    DEFOLIANT             LB   9  0  1.10  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00  1.43  1.8300  2.62    .00  .0000    .00    2.62
    DEFOLIATE - AIR     ACRE   9  0  1.10  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00   1.10 1.5000   1.65    1.65
                                           .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00                2.62                 1.65    4.27
1ST PICK 2 ROW          ACRE  10  3  1.00  .00   .00   .00   .00  .79  13.67  21.76  35.43   .79  .00  .79  1.82   .00  1.82  3.63   .00   .0000   .00    .00  .0000    .00   39.06
HAUL                      LB  10  0  1.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00 614.00  .0114   6.97    6.97
2ND PICK 2 ROW          ACRE  10  3   .70  .00   .00   .00   .00  .41   7.15  11.37  18.52   .41  .00  .41   .95   .00   .95  1.90   .00   .0000   .00    .00  .0000    .00   20.42
HAUL                      LB  10  0  1.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00 153.00  .0114   1.74    1.74
GIN                       LB  10  0  1.00  .00   .00   .00   .00  .00    .00    .00    .00   .00  .00  .00   .00   .00   .00   .00   .00   .0000   .00 767.00  .0800  61.36   61.36
                                          2.19  9.05  4.61 13.66 3.63  25.06  39.78  64.84  7.51 2.19 1.44 17.28  5.04  3.32 25.64               53.87                85.79  243.80
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Table 9. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, high input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.47	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.98	8.2500	8.08	.00	.0000	.00	8.08
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			8.09			.00	10.13
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.9500	1.91	.00	.0000	.00	1.91
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			9.82			.00	13.36
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
HAND WEED CONTROL	HOUR	6	0	.57	.00	.00	.00	.00	.00	.00	.00	.00	2.68	.00	.00	6.16	.00	.00	6.16	.00	.0000	.00	.00	.0000	.00	6.16
KARMEX (WP)	LB	6	0	.57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67

																			4.67	.00	.0000	.00	.00	.0000	.00	4.62
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			6.76			.00	8.98
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	.9600	3.43	.00	.0000	.00	3.43
FUNDAL	LB	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	8.8000	1.47	.00	.0000	.00	1.47
APPLY INS GROUND X2	ACRE	7	1	1.88	.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35	.00	.0000	.00	.00	.0000	.00	1.83
					.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35			4.91			.00	6.74
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	530.00	.0114	6.02	6.02
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.29	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	132.00	.0114	1.50	1.50
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	662.00	.0800	52.96	52.96
					3.22	13.53	6.92	20.45	4.27	20.06	32.46	52.53	5.94	3.22	1.05	13.66	7.40	2.41	23.48			63.09			80.00	239.54

Table 10. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, high input practices, 8 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
APPLY LIME X1/4	TON	11	0	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.98	8.2500	8.08	.00	.0000	.00	8.08
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			8.09			.00	9.76
ROW CONDITION	ACRE	5	3	.99	.11	.46	.23	.69	.11	.37	.72	1.09	.00	.11	.00	.00	.25	.00	.25	.00	.0000	.00	.00	.0000	.00	2.03
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.9500	1.91	.00	.0000	.00	1.91
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	.98	.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54	.00	.0000	.00	.00	.0000	.00	2.34
					.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54			9.92			.00	12.16
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	.89	.14	.61	.31	.92	.14	.21	.40	.61	.00	.14	.00	.00	.33	.00	.33	.00	.0000	.00	.00	.0000	.00	1.86
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	5	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.68	.00	.00	6.16	.00	.00	6.16	.00	.0000	.00	.00	.0000	.00	6.16
KARMEX (WP)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09

[illegible]	HOUR	7	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.00	.0000	.00	.00	.0000	.00	4.62
[illegible]	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	.89	.17	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.17	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			6.76			.00	8.40
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	.9600	3.43	.00	.0000	.00	3.43
FUNDAL	LB	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	8.8000	1.47	.00	.0000	.00	1.47
APPLY INS GROUND X2	ACRE	7	1	1.88	.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35	.00	.0000	.00	.00	.0000	.00	1.83
					.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35			4.91			.00	6.74
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	530.00	.0114	6.02	6.02
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.29	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	132.00	.0114	1.50	1.50
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	662.00	.0800	52.96	52.96
					2.58	10.78	5.51	16.29	3.67	19.92	32.17	52.09	5.86	2.58	1.05	13.48	5.92	2.41	21.81			63.09			80.00	233.28

Table 11. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, usual input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
APPLY LIME X1/4	TON	11	0	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.27	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.27	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOP 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.82	8.2500	6.76	.00	.0000	.00	6.76
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			6.76			.00	8.81
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
KARMEX (DL)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	5.0700	1.09	.00	.0000	.00	1.09
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			8.99			.00	12.53
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIDRIN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	4.5900	.62	.00	.0000	.00	.62
APPLY INS GROUND	ACRE	5	1	.93	.00	.00	.00	.00	.07	.42	.32	73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			.62			.00	1.52
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.62	1.2400	.77	.00	.0000	.00	.77
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			.77			.00	3.73
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.68	.00	.00	6.16	.00	.00	6.16	.00	.0000	.00	.00	.0000	.00	6.16
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			2.26			.00	4.48
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	3.2000	.43	.00	.0000	.00	.43
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.09			.00	3.31
HAND WEED CONTROL	HOUR	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.68	.00	.00	6.16	.00	.00	6.16	.00	.0000	.00	.00	.0000	.00	6.16
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.7600	6.76	.00	.0000	.00	6.76
CULT + POST LATE	ACRE	7	3	1.00	.19	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.41			6.76			.00	8.98

TOX + METHYL PARA	PT	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	.9600	3.43	.00	.0000	.00	3.43
FUNDAL	LB	7	0	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	8.8000	1.47	.00	.0000	.00	1.47
APPLY INS GROUND X2	ACRE	7	1	1.88	.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35	.00	.0000	.00	.00	.0000	.00	1.83
					.00	.00	.00	.00	.15	.85	.64	1.49	.00	.00	.15	.00	.00	.35	.35			4.91			.00	6.74
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	8.8000	3.30	.00	.0000	.00	3.30
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			10.99			2.40	13.46
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	514.00	.0114	5.83	5.83
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.28	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	129.00	.0114	1.46	1.46
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	643.00	.0800	51.44	51.44
					2.98	12.51	6.40	18.90	4.03	19.58	31.53	51.11	6.57	2.98	1.05	15.11	6.85	2.41	24.37			56.21			75.26	225.85

Table 12. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, usual input practices, 8 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.98	.20	.03	.13	.17	.00	.20	.00	.00	.45	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.82	8.2500	6.76	.00	.0000	.00	6.76
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			6.76			.00	8.44
ROW CONDITION	ACRE	5	3	.89	.11	.46	.23	.69	.11	.37	.72	1.09	.00	.11	.00	.00	.25	.00	.25	.00	.0000	.00	.00	.0000	.00	2.03
KARMEX (OL)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	5.0700	1.09	.00	.0000	.00	1.09
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	.98	.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54	.00	.0000	.00	.00	.0000	.00	2.34
					.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54			8.99			.00	11.33
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	.89	.14	.61	.31	.92	.14	.21	.40	.61	.00	.14	.00	.00	.33	.00	.33	.00	.0000	.00	.00	.0000	.00	1.86
BIORIN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	4.5900	.62	.00	.0000	.00	.62
APPLY INS GROUND	ACRE	5	1	.93	.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			.62			.00	1.52
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.62	1.2400	.77	.00	.0000	.00	.77
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			.77			.00	3.04
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.68	.00	.00	6.16	.00	.00	6.16	.00	.0000	.00	.00	.0000	.00	6.16
MSMA + SURFACTANT	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
COTORAN	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
CULT + POST LATE	ACRE	7	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			2.26			.00	3.90
MSMA + SURFACTANT	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
KARMEX (WR)	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	3.2000	.43	.00	.0000	.00	.43
CULT + POST LATE	ACRE	7	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			1.09			.00	2.73

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  LOROX                LB    7 0 1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   1.00  6.7600   6.76    .00  .0000    .00    6.76
  CULT + POST LATE     ACRE  7 3  .89   .12   .49   .25   .75   .12   .21   .41   .62   .00   .12   .00   .00   .27   .00   .27    .00   .0000    .00    .00  .0000    .00    1.64
                                        .12   .49   .25   .75   .12   .21   .41   .62   .00   .12   .00   .00   .27   .00   .27                  6.76                   .00    8.40
INSECT SCOUTING        ACRE  7 0 1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00   1.00 1.5000   1.50    1.50
  TOX + METHYL PARA    PT    7 0 1.34   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   3.58   .9600   3.43    .00  .0000    .00    3.43
  FUNDAL               LB    7 0 1.34   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .17  8.8000   1.47    .00  .0000    .00    1.47
  APPLY INS GROUND X2  ACRE  7 1 1.88   .00   .00   .00   .00   .15   .85   .64  1.49   .00   .00   .15   .00   .00   .35   .35    .00   .0000    .00    .00  .0000    .00    1.83
                                        .00   .00   .00   .00   .15   .85   .64  1.49   .00   .00   .15   .00   .00   .35   .35                  4.91                   .00    6.74
  TOX + METHYL PARA    PT    8 0 3.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   8.01   .9600   7.69    .00  .0000    .00    7.69
  FUNDAL               LB    8 0 3.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .39  8.8000   3.30    .00  .0000    .00    3.30
  COMMON LABOR         HOUR  8 0 3.00   .00   .00   .00   .00   .00   .00   .00   .00   .03   .00   .00   .07   .00   .00   .07    .00   .0000    .00    .00  .0000    .00     .07
  APPLY INS AIR X3     ACRE  8 0 3.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00   3.00  .8000   2.40    2.40
                                        .00   .00   .00   .00   .00   .00   .00   .00   .03   .00   .00   .07   .00   .00   .07                 10.99                  2.40   13.46
  TOX + METHYL PARA    PT    9 0 2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   5.34   .9600   5.13    .00  .0000    .00    5.13
  COMMON LABOR         HOUR  9 0 2.00   .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05    .00   .0000    .00    .00  .0000    .00     .05
  APPLY INS AIR X2     ACRE  9 0 2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00   2.00  .8000   1.60    1.60
                                        .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05                  5.13                  1.60    6.77
  DEFOLIANT            LB    9 0 1.10   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   1.43  1.8300   2.62    .00  .0000    .00    2.62
  DEFOLIATE - AIR      ACRE  9 0 1.10   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00   1.10 1.5000   1.65    1.65
                                        .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00                  2.62                  1.65    4.27
1ST PICK 2 ROW         ACRE 10 3  .69   .00   .00   .00   .00   .55  9.43 15.01 24.45   .55   .00   .55  1.25   .00  1.25  2.51    .00   .0000    .00    .00  .0000    .00   26.95
HAUL                   LB   10 0 1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00 514.00  .0114   5.83    5.83
2ND PICK 2 ROW         ACRE 10 3  .47   .00   .00   .00   .00   .28  4.80  7.64 12.44   .28   .00   .28   .54   .00   .69  1.29    .00   .0000    .00    .00  .0000    .00   13.71
HAUL                   LB   10 0 1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00 129.00  .0114   1.46    1.46
GIN                    LB   10 0 1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00    .00   .0000    .00 643.00  .0800  51.44   51.44
                                       2.34  9.76  4.99 14.74  3.38 19.44 31.24 50.67  6.49  2.34  1.05 14.95  5.37  2.41 22.71                 56.21                 75.26  219.59
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Table 13. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, more efficient input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 15 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 15 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74	8.2500	6.10	.00	.0000	.00	6.10
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			6.11			.00	8.15
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.9500	1.91	.00	.0000	.00	1.91
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			9.82			.00	13.36
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIORIN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	4.5900	.62	.00	.0000	.00	.62
APPLY INS GROUND	ACRE	5	1	.93	.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			.62			.00	1.52
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67
HAND WEED CONTROL	HOUR	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	6.7600	4.53	.00	.0000	.00	4.53
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			4.53			.00	6.75

TOX + METHYL PARA	PT	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	7	1	.93	.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			2.45			.00	3.36
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	528.00	.0114	5.99	5.99
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.29	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	132.00	.0114	1.50	1.50
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	660.00	.0800	52.80	52.80
					3.28	13.79	7.05	20.84	4.33	18.92	30.37	49.29	5.22	3.28	1.05	12.01	7.54	2.41	21.96			46.46			76.02	214.56

Table 14. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, more efficient input practices, 8 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 15 FT	ACRE	3	3	1.00	.22	.94	.49	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 15 FT	ACRE	3	3	1.00	.22	.94	.49	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74	8.2500	6.10	.00	.0000	.00	6.10
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.29	.00	.29			6.11			.00	7.78
ROW CONDITION	ACRE	5	3	.99	.11	.46	.23	.69	.11	.37	.72	1.09	.00	.11	.00	.00	.25	.00	.25	.00	.0000	.00	.00	.0000	.00	2.03
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	5.9500	1.91	.00	.0000	.00	1.91
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	.98	.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54	.00	.0000	.00	.00	.0000	.00	2.34
					.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54			9.82			.00	12.16
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	.89	.14	.61	.31	.92	.14	.21	.40	.61	.00	.14	.00	.00	.33	.00	.33	.00	.0000	.00	.00	.0000	.00	1.86
BIORIN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	4.5900	.62	.00	.0000	.00	.62
APPLY INS GROUND	ACRE	5	1	.93	.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			.62			.00	1.52
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	5	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09
HAND WEED CONTROL	HOUR	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	6.7600	4.53	.00	.0000	.00	4.53
CULT + POST LATE	ACRE	7	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			4.53			.00	6.17

TOX + METHYL PARA	PT	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	7	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	76.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	528.00	.0114	5.99	5.99
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.28	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	.00	.00	.0000	.00	132.00	.0114	1.50	1.50
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	660.00	.0800	52.80	52.80
					2.64	11.04	5.64	16.68	3.68	18.79	30.08	48.86	5.14	2.64	1.05	11.82	6.06	2.41	20.29			46.46			76.02	208.32

Table 15. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, limited seedbed preparation, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
APPLY LIME X1/4	TON	11	0	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
DISK BED	ACRE	3	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74	8.2500	6.10	.00	.0000	.00	6.10
DISK BED + FERT	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			6.11			.00	8.15
ROW CONDITION	ACRE	5	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
KARMEX (DL)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	5.0700	1.09	.00	.0000	.00	1.09
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			8.99			.00	12.53
TRAILER	ACRE	5	1	1.00	.07	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIDRIN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	4.5900	.62	.00	.0000	.00	.62
APPLY INS GROUND	ACRE	5	1	.93	.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.91
					.00	.00	.00	.00	.07	.42	.32	.73	.00	.00	.07	.00	.00	.17	.17			.62			.00	1.52
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
COTORAN	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			2.26			.00	5.21
HAND WEED CONTROL	HOUR	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
KARMEX (WP)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67
KARMEX (WP)	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.45			.00	2.67
HAND WEED CONTROL	HOUR	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	7	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
[illegible]					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37

FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	540.00	.0114	6.13	6.13
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.28	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	135.00	.0114	1.53	1.53
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	675.00	.0800	54.00	54.00
					2.56	10.71	5.48	16.19	3.67	18.27	28.98	47.25	5.22	2.56	1.05	12.01	5.89	2.41	20.30			41.11			77.39	202.23

Table 16. Estimated cost per acre by operation, 2 x 1 cotton, land basis, sandy soil, limited seedbed preparation, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
APPLY LIME X1/A	TON	11	0	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.75	12.5000	9.38	9.38
STALK SHREDDER 2 ROW	ACRE	11	1	.67	.20	.66	.32	.99	.20	.03	.13	.17	.00	.20	.00	.00	.46	.00	.46	.00	.0000	.00	.00	.0000	.00	1.62
SUBSOILER 2 ROW	ACRE	11	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
DISK BED	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74	8.2500	6.10	.00	.0000	.00	6.10
DISK BED + FERT	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			6.11			.00	7.78
ROW CONDITION	ACRE	5	3	.89	.11	.46	.23	.69	.11	.37	.72	1.09	.00	.11	.00	.00	.25	.00	.25	.00	.0000	.00	.00	.0000	.00	2.03
KARMEX (DL)	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	5.0700	1.09	.00	.0000	.00	1.09
TEMIK	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	10.6000	2.13	.00	.0000	.00	2.13
SOIL TREATER XXX	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.9600	.64	.00	.0000	.00	.64
SEED TRIPLE TREATED	LB	5	0	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.50	.2773	5.13	.00	.0000	.00	5.13
PLANT + PRE	ACRE	5	3	.98	.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54	.00	.0000	.00	.00	.0000	.00	2.34
					.12	.50	.26	.76	.12	.32	.72	1.04	.12	.12	.00	.27	.27	.00	.54			8.99			.00	11.33
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	.89	.14	.61	.31	.92	.14	.21	.40	.61	.00	.14	.00	.00	.33	.00	.33	.00	.0000	.00	.00	.0000	.00	1.86
BIORIN	LB	5	0	.93	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	4.5900	.85	.00	.0000	.00	.85
APPLY INS GROUND	ACRE	5	1	.67	.00	.00	.00	.00	.05	.30	.23	.53	.00	.00	.05	.00	.00	.12	.12	.00	.0000	.00	.00	.0000	.00	.65
					.00	.00	.00	.00	.05	.30	.23	.53	.00	.00	.05	.00	.00	.12	.12			.85			.00	1.51
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
COTORAN	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	5.9500	1.59	.00	.0000	.00	1.59
MSMA + SURFACTANT	LB	5	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	1.2400	.66	.00	.0000	.00	.66
CULT + POST EARLY	ACRE	6	3	.89	.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.27
					.16	.68	.35	1.03	.16	.29	.57	.86	.00	.16	.00	.00	.37	.00	.37			2.26			.00	4.53
HAND WEED CONTROL	HOUR	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
KARMEX (WP)	LB	6	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	6	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09
KARMEX (WP)	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	3.2000	.45	.00	.0000	.00	.45
CULT + POST LATE	ACRE	7	3	.89	.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27	.00	.0000	.00	.00	.0000	.00	1.64
					.12	.49	.25	.75	.12	.21	.41	.62	.00	.12	.00	.00	.27	.00	.27			.45			.00	2.09
HAND WEED CONTROL	HOUR	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	2.01	.00	.00	4.62	.00	.00	4.62	.00	.0000	.00	.00	.0000	.00	4.62
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	7	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	7	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
					.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17			2.45			.00	3.37
TOX + METHYL PARA	PT	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.79	.9600	1.72	.00	.0000	.00	1.72
FUNDAL	LB	8	0	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	8.8000	.74	.00	.0000	.00	.74
APPLY INS GROUND	ACRE	8	1	.94	.00	.00	.00	.00	.08	.42	.32	.74	.00	.00	.08	.00	.00	.17	.17	.00	.0000	.00	.00	.0000	.00	.92
																		.17	.17			2.45			.00	3.37

FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	.69	.00	.00	.00	.00	.55	9.43	15.01	24.45	.55	.00	.55	1.25	.00	1.25	2.51	.00	.0000	.00	.00	.0000	.00	26.95
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	540.00	.0114	6.13	6.13
2ND PICK 2 ROW	ACRE	10	3	.47	.00	.00	.00	.00	.28	4.80	7.64	12.44	.28	.00	.28	.64	.00	.64	1.29	.00	.0000	.00	.00	.0000	.00	13.71
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	135.00	.0114	1.53	1.53
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	675.00	.0800	54.00	54.00
					1.98	8.24	4.21	12.45	3.07	18.02	28.61	46.63	5.14	1.98	1.03	11.87	4.55	2.36	18.74			41.35			77.39	196.54

Table 17. Estimated cost per acre by operation, solid cotton, clay soil, high input practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
REBED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT AMM NITRATE	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	5.0700	4.06	.00	.0000	.00	4.06
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			15.82			.00	19.36
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			3.37			.00	6.32
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89

HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.64	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	440.00	.0114	4.99	4.99
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0114	1.25	1.25
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	550.00	.0800	44.00	44.00
					2.88	11.98	6.12	18.10	4.32	26.20	41.97	68.11	8.63	2.88	1.44	19.85	6.62	3.32	29.79			99.52			60.39	275.91

Table 18. Estimated cost per acre by operation, solid cotton, clay soil, high input practices, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	[illegible]	[illegible]	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
REBED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT AMM NITRATE	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
ROW CONDITION	ACRE	5	3	1.00	.17	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	5.0700	4.06	.00	.0000	.00	4.06
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			15.82			.00	18.45
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
MSMA + SURFACTANT	LB	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.2400	4.96	.00	.0000	.00	4.96
COMMON LABOR	HOUR	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09	.00	.0000	.00	.00	.0000	.00	.09
APPLY MSMA AIR X2	ACRE	5	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	1.5000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.09			4.96			3.00	8.05
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
COTORAN	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	5.9500	2.38	.00	.0000	.00	2.38
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	1.2400	.99	.00	.0000	.00	.99
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			3.37			.00	5.92
FERT AMM NITRATE	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51

																					.00	.0000	.00	.00	.0000	.00	1.31
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90
INSECT SCOUTING	ACRE	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			9.89			2.40	12.36
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	440.00	.0114	4.99	4.99
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0114	1.25	1.25
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	550.00	.0800	44.00	44.00
					7.41	9.99	5.10	15.09	3.65	26.41	42.27	68.68	8.56	2.41	1.44	19.70	5.55	3.32	28.57			99.52			60.39	272.24

Table 19. Estimated cost per acre by operation, solid cotton, clay soil, usual practices, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOP 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
REBED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT AMM NITRATE	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	5.0700	4.06	.00	.0000	.00	4.06
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			15.82			.00	19.36
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
FERT AMM NITRATE	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

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TOX + METHYL PARA      PT    7  0  2.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   5.34   .9600   5.13    .00  .0000    .00    5.13
FUNDAL                 LB    7  0  2.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .25  8.8000   2.20    .00  .0000    .00    2.20
APPLY INS GROUND X2    ACRE  7  1  2.00   .00    .00    .00   .00   .16    .90    .68   1.58   .00   .00   .16    .00    .00    .37    .37    .00   .0000    .00    .00  .0000    .00    1.95
                                          .00    .00    .00   .00   .18    .90    .68   1.58   .00   .00   .16    .00    .00    .37    .37                  7.33                       .00    9.27

TOX + METHYL PARA      PT    8  0  3.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   8.01   .9600   7.69    .00  .0000    .00    7.69
FUNDAL                 LB    8  0  3.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .38  8.8000   3.30    .00  .0000    .00    3.30
COMMON LABOR           HOUR  8  0  3.00   .00    .00    .00   .00   .00    .00    .00    .00   .03   .00   .00    .07    .00    .00    .07    .00   .0000    .00    .00  .0000    .00     .07
APPLY INS AIR X3       ACRE  8  0  3.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00   3.00  .8000   2.40    2.40
                                          .00    .00    .00   .00   .00    .00    .00    .00   .03   .00   .00    .07    .00    .00    .07                 10.99                      2.40   13.46

TOX + METHYL PARA      PT    9  0  2.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   5.34   .9600   5.13    .00  .0000    .00    5.13
COMMON LABOR           HOUR  9  0  2.00   .00    .00    .00   .00   .00    .00    .00    .00   .02   .00   .00    .05    .00    .00    .05    .00   .0000    .00    .00  .0000    .00     .05
APPLY INS AIR X2       ACRE  9  0  2.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00   2.00  .8000   1.60    1.60
                                          .00    .00    .00   .00   .00    .00    .00    .00   .02   .00   .00    .05    .00    .00    .05                  5.13                      1.60    6.77

DEFOLIANT              LB    9  0  1.10   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00   1.43  1.8300   2.62    .00  .0000    .00    2.62
DEFOLIATE - AIR        ACRE  9  0  1.10   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00   1.10 1.5000   1.65    1.65
                                          .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00                  2.62                      1.65    4.27
1ST PICK 2 ROW         ACRE 10  3  1.00   .00    .00    .00   .00   .79  13.67  21.76  35.43   .79   .00   .79   1.82    .00   1.82   3.64    .00   .0000    .00    .00  .0000    .00   39.06
HAUL                   LB   10  0  1.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00 440.00  .0114   4.99    4.99
2ND PICK 2 ROW         ACRE 10  3   .70   .00    .00    .00   .00   .41   7.15  11.37  18.52   .41   .00   .41    .95    .00    .95   1.90    .00   .0000    .00    .00  .0000    .00   20.42
HAUL                   LB   10  0  1.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00 110.00  .0114   1.25    1.25
GIN                    LB   10  0  1.00   .00    .00    .00   .00   .00    .00    .00    .00   .00   .00   .00    .00    .00    .00    .00    .00   .0000    .00 550.00  .0800  44.00   44.00
                                         2.88  11.98   6.12 18.10  4.32  26.20  41.91  68.11  8.59  2.88  1.44  19.76   6.62   3.32  29.70                 88.48                     57.39  261.78
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Table 20. Estimated cost per acre by operation, solid cotton, clay soil, usual practices, 8 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.59	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	3	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
REBED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT AMM NITRATE	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
KARMEX (DL)	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	5.0700	4.06	.00	.0000	.00	4.06
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			15.82			.00	18.45
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
FERT AMM NITRATE	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.24	8.0200	17.96	.00	.0000	.00	17.96
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			17.96			.00	19.03
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

TOX + METHYL PARA	PT	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			7.33			.00	9.27
TOX + METHYL PARA	PT	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.01	.9600	7.69	.00	.0000	.00	7.69
FUNDAL	LB	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	8.8000	3.30	.00	.0000	.00	3.30
COMMON LABOR	HOUR	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07	.00	.0000	.00	.00	.0000	.00	.07
APPLY INS AIR X3	ACRE	8	0	3.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	3.00	.8000	2.40	2.40
					.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.07	.00	.00	.07			10.99			2.40	13.46
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	440.00	.0114	4.99	4.99
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0114	1.25	1.25
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	550.00	.0800	44.00	44.00
					2.41	9.99	5.10	15.09	3.85	26.41	42.27	68.68	8.52	2.41	1.44	19.61	5.55	3.32	28.47			88.48			57.39	258.11

Table 21. Estimated cost per acre by operation solid cotton, clay soil, more efficient practices, spring seedbed preparation, 6 row equipment, Mississippi Delta, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	11	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK BED	ACRE	11	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
REBED	ACRE	11	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
CULTIVATE BEDS	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
CULTIVATE BEDS	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
FERT UREA-SOL10	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.67	7.7000	12.86	.00	.0000	.00	12.86
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.86			.00	13.92
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	5.9500	7.44	.00	.0000	.00	7.44
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			19.20			.00	22.75
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIORIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
FERT UREA-SOL10	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.66	7.7000	12.78	.00	.0000	.00	12.78
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.78			.00	13.85
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.63	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	440.00	.0114	4.99	4.99
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0114	1.25	1.25
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	550.00	.0800	44.00	44.00
					2.74	11.38	5.91	17.19	4.18	25.42	40.52	65.94	8.58	2.74	1.44	19.74	6.30	3.32	29.35			71.81			56.59	240.89

Table 22. Estimated cost per acre by operation, solid cotton, clay soil, more efficient practices, spring seedbed preparation, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	11	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK BED	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
REBED	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE BEDS	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE BEDS	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT UREA-SOLID	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.67	7.7000	12.86	.00	.0000	.00	12.86
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.86			.00	13.92
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	5.9500	7.44	.00	.0000	.00	7.44
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.61	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			19.20			.00	21.83
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIDRIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.66	7.7000	12.78	.00	.0000	.00	12.78
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.78			.00	13.85
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

TOX + METHYL PARA	PT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	7	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.67	.9600	2.56	.00	.0000	.00	2.56
FUNDAL	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	8.8000	1.10	.00	.0000	.00	1.10
APPLY INS GROUND	ACRE	8	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			3.66			.00	4.64
TOX + METHYL PARA	PT	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
FUNDAL	LB	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	8.8000	2.20	.00	.0000	.00	2.20
COMMON LABOR	HOUR	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	8	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			7.33			1.60	8.97
TOX + METHYL PARA	PT	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.34	.9600	5.13	.00	.0000	.00	5.13
COMMON LABOR	HOUR	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY INS AIR X2	ACRE	9	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	[illegible]	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			5.13			1.60	6.77
DEFOLIANT	LB	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	1.8300	2.62	.00	.0000	.00	2.62
DEFOLIATE - AIR	ACRE	9	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.10	1.5000	1.65	1.65
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			2.62			1.65	4.27
1ST PICK 2 ROW	ACRE	10	3	1.00	.00	.00	.00	.00	.79	13.67	21.76	35.43	.79	.00	.79	1.82	.00	1.82	3.64	.00	.0000	.00	.00	.0000	.00	39.06
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	443.00	.0114	4.99	4.99
2ND PICK 2 ROW	ACRE	10	3	.70	.00	.00	.00	.00	.41	7.15	11.37	18.52	.41	.00	.41	.95	.00	.95	1.90	.00	.0000	.00	.00	.0000	.00	20.42
HAUL	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0114	1.25	1.25
GIN	LB	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	550.00	.0800	44.00	44.00
					7.19	9.05	4.61	13.66	3.63	25.67	40.94	66.61	8.51	2.19	1.44	19.58	5.04	3.32	27.94			71.81			56.59	236.62

Table 23. Estimated cost per acre by operation, solid cotton, clay soil, more efficient practices, fall seedbed preparation, 6 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS				EQUIPMENT HOURS				LABOR HOURS COMM			LABOR COST COMM				MATERIAL QUAN			MISCELLANEOUS QUAN			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
REBED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT UREA-SOLID	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.67	7.7000	12.86	.00	.0000	.00	12.86
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.86			.00	13.92
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.19	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	5.9500	7.44	.00	.0000	.00	7.44
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			19.20			.00	22.75
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
BIORIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55	.00	.0000	.00	.00	.0000	.00	2.95
					.24	1.02	.53	1.55	.24	.29	.56	.85	.00	.24	.00	.00	.55	.00	.55			1.15			.00	4.11
FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.66	7.7000	12.78	.00	.0000	.00	12.78
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.78			.00	13.85
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE I	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE I	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			.67			.00	2.89
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

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INSECT SCOUTING       ACRE  7  0  1.00
  TOX + METHYL PARA     PT  7  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00   2.67   .9600   2.56    .00   .0000    .00    2.56
  FUNDAL                LB  7  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .17  8.8000   1.10    .00   .0000    .00    1.10
  APPLY INS GROUND    ACRE  7  1  1.00   .00    .00    .00    .00  .08    .45    .34    .79   .00   .00   .08    .00    .00   .18    .18    .00   .0000    .00    .00   .0000    .00     .97
                                         .00    .00    .00    .00  .08    .45    .34    .79   .00   .00   .08    .00    .00   .18    .18                 3.66                  .00    4.64
  TOX + METHYL PARA     PT  8  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00   2.67   .9600   2.56    .00   .0000    .00    2.56
  FUNDAL                LB  8  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .13  8.8000   1.10    .00   .0000    .00    1.10
  APPLY INS GROUND    ACRE  8  1  1.00   .00    .00    .00    .00  .08    .45    .34    .79   .00   .00   .08    .00    .00   .18    .18    .00   .0000    .00    .00   .0000    .00     .97
                                         .00    .00    .00    .00  .08    .45    .34    .79   .00   .00   .08    .00    .00   .18    .18                 3.66                  .00    4.64
  TOX + METHYL PARA     PT  8  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00   5.34   .9600   5.13    .00   .0000    .00    5.13
  FUNDAL                LB  8  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .25  8.8000   2.20    .00   .0000    .00    2.20
  COMMON LABOR        HOUR  8  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .02   .00   .00    .05    .00   .00    .05    .00   .0000    .00    .00   .0000    .00     .05
  APPLY INS AIR X2    ACRE  9  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00   2.00   .8000   1.60    1.60
                                         .00    .00    .00    .00  .00    .00    .00    .00   .02   .00   .00    .05    .00   .00    .05                 7.33                 1.60    8.97
  TOX + METHYL PARA     PT  9  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00   5.34   .9600   5.13    .00   .0000    .00    5.13
  COMMON LABOR        HOUR  9  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .02   .00   .00    .05    .00   .00    .05    .00   .0000    .00    .00   .0000    .00     .05
  APPLY INS AIR X2    ACRE  9  0  2.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00   2.00   .8000   1.60    1.60
                                         .00    .00    .00    .00  .00    .00    .00    .00   .02   .00   .00    .05    .00   .00    .05                 5.13                 1.60    6.77
   DEFOLIANT            LB  9  0  1.10   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00   1.43  1.8300   2.62    .00   .0000    .00    2.62
   DEFOLIATE - AIR    ACRE  9  0  1.10   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00   1.10  1.5000   1.65    1.65
                                         .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00                 2.62                 1.65    4.27
1ST PICK 2 ROW        ACRE 10  3  1.00   .00    .00    .00    .00  .79  13.67  21.76  35.43   .79   .00   .79   1.82    .07  1.82   3.67    .00   .0000    .00    .00   .0000    .00   39.06
HAUL                    LB 10  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00 440.00   .0114   4.99    4.99
2ND PICK 2 ROW        ACRE 10  3   .70   .00    .00    .00    .00  .41   7.15  11.37  18.52   .41   .00   .41    .95    .00   .95   1.90    .00   .0000    .00    .00   .0000    .00   20.42
HAUL                    LB 10  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00 110.00   .0114   1.25    1.25
GIN                     LB 10  0  1.00   .00    .00    .00    .00  .00    .00    .00    .00   .00   .00   .00    .00    .00   .00    .00    .00   .0000    .00 550.00   .0800  44.00   44.00
                                        2.70  11.21   5.72  16.93 4.18  25.64  40.95  66.59  8.58  2.70  1.44  19.74   6.21  3.32  29.26                71.81                56.59  741.19
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Table 24. Estimated cost per acre by operation, solid cotton, clay soil, more efficient practices, fall seedbed preparation, 8 row equipment, Mississippi Delta, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
STALK SHREDDER 2 ROW	ACRE	11	1	1.00	.30	.99	.48	1.47	.30	.05	.20	.25	.00	.30	.00	.00	.69	.00	.69	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	3	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
REBED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT UREA-SOLID	CWT	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.67	7.7000	12.86	.00	.0000	.00	12.86
APPLY FERT SPIN SPR	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.86			.00	13.92
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
COTORAN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	5.9500	7.44	.00	.0000	.00	7.44
TEMIK	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	10.6000	3.18	.00	.0000	.00	3.18
SOIL TREATER XXX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.9600	.96	.00	.0000	.00	.96
SEED TRIPLE TREATED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.50	.2773	7.63	.00	.0000	.00	7.63
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			19.20			.00	21.83
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
BIORIN	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	4.5900	.92	.00	.0000	.00	.92
APPLY INS GROUND	ACRE	5	1	1.00	.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18	.00	.0000	.00	.00	.0000	.00	.97
					.00	.00	.00	.00	.08	.45	.34	.79	.00	.00	.08	.00	.00	.18	.18			.92			.00	1.89
MSMA + SURFACTANT	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
MSMA + SURFACTANT	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	1.2400	1.15	.00	.0000	.00	1.15
CULT + POST EARLY	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.55
					.18	.77	.39	1.16	.18	.33	.64	.97	.00	.18	.00	.00	.41	.00	.41			1.15			.00	3.70
FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.66	7.7000	12.78	.00	.0000	.00	12.78
APPLY FERT SPIN SPR	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			12.78			.00	13.85
HAND WEED CONTROL	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00	9.20	.00	.00	9.20	.00	.0000	.00	.00	.0000	.00	9.20
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	CRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
KARMEX (WP)	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	3.2000	.67	.00	.0000	.00	.67
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			.67			.00	2.51
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
HAND WEED CONTROL	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00	6.90	.00	.00	6.90	.00	.0000	.00	.00	.0000	.00	6.90

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INSECT SCOUTING     ACRE  7  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00   1.00  1.5000  1.50   1.50
  TOX + METHYL PARA   PT  7  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  2.67  .9600  2.56    .00   .0000   .00   2.56
  FUNDAL              LB  7  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .13 8.8000  1.10    .00   .0000   .00   1.10
  APPLY INS GROUND  ACRE  7  1  1.00   .00   .00   .00   .00   .08   .45   .34   .79   .00   .00   .08   .00   .00   .18   .18   .00  .0000   .00    .00   .0000   .00    .97
                                       .00   .00   .00   .00   .08   .45   .34   .79   .00   .00   .08   .00   .00   .18   .18               3.66                  .00   4.64
  TOX + METHYL PARA   PT  8  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  2.67  .9600  2.56    .00   .0000   .00   2.56
  FUNDAL              LB  8  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .13 8.8000  1.10    .00   .0000   .00   1.10
  APPLY INS GROUND  ACRE  8  1  1.00   .00   .00   .00   .00   .08   .45   .34   .79   .00   .00   .08   .00   .00   .18   .18   .00  .0000   .00    .00   .0000   .00    .97
                                       .00   .00   .00   .00   .08   .45   .34   .79   .00   .00   .08   .00   .00   .18   .18               3.66                  .00   4.64
  TOX + METHYL PARA   PT  8  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  5.34  .9600  5.13    .00   .0000   .00   5.13
  FUNDAL              LB  9  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .25 8.8000  2.20    .00   .0000   .00   2.20
  COMMON LABOR      HOUR  9  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05   .00  .0000   .00    .00   .0000   .00    .05
  APPLY INS AIR X2  ACRE  8  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00   2.00   .8000  1.60   1.60
                                       .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05               7.33                 1.60   8.97
  TOX + METHYL PARA   PT  9  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  5.34  .9600  5.13    .00   .0000   .00   5.13
  COMMON LABOP      HOUR  9  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05   .00  .0000   .00    .00   .0000   .00    .05
  APPLY INS AIR X2  ACRE  9  0  2.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00   2.00   .8000  1.60   1.60
                                       .00   .00   .00   .00   .00   .00   .00   .00   .02   .00   .00   .05   .00   .00   .05               5.13                 1.60   6.77
  DEFOLIANT           LB  9  0  1.10   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  1.43 1.8300  2.62    .00   .0000   .00   2.62
  DEFOLIATE - AIR   ACRE  9  0  1.10   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00   1.10  1.5000  1.65   1.65
                                       .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00               2.62                 1.65   4.27
1ST PICK 2 ROW      ACRE 10  3  1.00   .00   .00   .00   .00   .79 13.67 21.76 35.43   .79   .00   .79  1.82   .00  1.82  3.63   .00  .0000   .00    .00   .0000   .00  39.06
HAUL                  LB 10  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00 440.00   .0114  4.99   4.99
2ND PICK 2 ROW      ACRE 10  3   .70   .00   .00   .00   .00   .41  7.15 11.37 18.52   .41   .00   .41   .95   .00   .95  1.90   .00  .0000   .00    .00   .0000   .00  20.42
HAUL                  LB 10  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00 110.00   .0114  1.25   1.25
GIN                   LB 10  0  1.00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00  .0000   .00 550.00   .0800 44.00  44.00
                                      2.23  9.22  4.70 13.92  3.67 25.85 41.37 67.16  8.51  2.23  1.44 19.58  5.13  3.32 29.04              71.81                56.59 237.52
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ble 25. Estimated cost and net returns per acre solid cotton, sandy soil, high input practices, 6 row uipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	752.00	300.80
COTTON SEED	LB	.05000	1166.00	58.30
TOTAL INCOME				359.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.63	19.85
OPERATOR LABOR	HOUR	2.30	3.32	7.63
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	1.47	12.13
COTORAN	LB	5.95	1.28	7.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
MSMA + SURFACTANT	LB	1.24	5.60	6.94
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
KARMEX (WP)	LB	3.20	.42	1.34
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	21.36	20.51
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.58	1.00	4.58
TRACTOR	ACRE	13.86	1.00	13.86
INT ON OP CAP	ACRE	6.65	1.00	6.65
HAUL	LB	.01	752.00	8.54
GIN	LB	.08	752.00	60.16
TOTAL DIRECT EXPENSE				244.50
RETURNS ABOVE DIRECT EXPENSES				114.60
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	8.92	1.00	8.92
TRACTOR	ACRE	7.08	1.00	7.08
TOTAL FIXED EXPENSE				50.15
TOTAL SPECIFIED EXPENSES				294.65
NET RETURN				64.45

le 26. Estimated cost and net returns per acre solid cotton, sandy soil, high input practices, 8 row ipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	752.00	300.80
COTTON SEED	LB	.05000	1166.00	58.30
TOTAL INCOME				359.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.56	19.70
OPERATOR LABOR	HOUR	2.30	2.80	6.44
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	1.47	12.13
COTORAN	LB	5.95	1.28	7.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
MSMA + SURFACTANT	LB	1.24	5.60	6.94
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
KARMEX (WP)	LB	3.20	.42	1.34
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	21.36	20.51
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.70	1.00	4.70
TRACTOR	ACRE	11.65	1.00	11.65
INT ON OP CAP	ACRE	6.50	1.00	6.50
HAUL	LB	.01	752.00	8.54
GIN	LB	.08	752.00	60.16
TOTAL DIRECT EXPENSE				240.94
RETURNS ABOVE DIRECT EXPENSES				118.16
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	9.14	1.00	9.14
TRACTOR	ACRE	5.95	1.00	5.95
TOTAL FIXED EXPENSE				49.25
TOTAL SPECIFIED EXPENSES				290.19
NET RETURN				68.91

ble 27. Estimated cost and net returns per acre solid cotton, sandy soil, usual input practices, 6 row ipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	730.00	292.00
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				348.60
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	9.59	22.06
OPERATOR LABOR	HOUR	2.30	3.08	7.08
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	1.22	10.06
KARMEX (DL)	LB	5.07	.32	1.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	3.33	4.13
COTORAN	LB	5.95	.80	4.76
KARMEX (WP)	LB	3.20	.20	.64
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.69	17.94
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.10	1.00	4.10
TRACTOR	ACRE	12.83	1.00	12.83
INT ON OP CAP	ACRE	6.15	1.00	6.15
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				230.68
RETURNS ABOVE DIRECT EXPENSES				117.92
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	7.99	1.00	7.99
TRACTOR	ACRE	6.56	1.00	6.56
TOTAL FIXED EXPENSE				48.70
TOTAL SPECIFIED EXPENSES				279.38
NET RETURN				69.22

le 28. Estimated cost and net returns per acre solid cotton, sandy soil, usual input practices, 8 row ipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	730.00	292.00
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				348.60
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	9.52	21.91
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	1.22	10.06
KARMEX (DL)	LB	5.07	.32	1.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	3.33	4.13
COTORAN	LB	5.95	.80	4.76
KARMEX (WP)	LB	3.20	.20	.64
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.69	17.94
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.22	1.00	4.22
TRACTOR	ACRE	10.63	1.00	10.63
INT ON OP CAP	ACRE	6.00	1.00	6.00
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				227.12
RETURNS ABOVE DIRECT EXPENSES				121.48
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	8.21	1.00	8.21
TRACTOR	ACRE	5.43	1.00	5.43
TOTAL FIXED EXPENSE				47.79
TOTAL SPECIFIED EXPENSES				274.91
NET RETURN				73.69

ble 29. Estimated cost and net returns per acre solid cotton, sandy soil, more efficient input practices, 6 w equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	750.00	300.00
COTTON SEED	LB	.05000	1162.00	58.10
TOTAL INCOME				358.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	7.58	17.44
OPERATOR LABOR	HOUR	2.30	3.38	7.77
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	1.10	9.07
COTORAN	LB	5.95	1.28	7.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.60	1.98
KARMEX (WP)	LB	3.20	.42	1.34
LOROX	LB	6.76	.67	4.53
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.45	1.00	3.45
TRACTOR	ACRE	14.11	1.00	14.11
INT ON OP CAP	ACRE	5.99	1.00	5.99
HAUL	LB	.01	750.00	8.51
GIN	LB	.08	750.00	60.00
TOTAL DIRECT EXPENSE				218.11
RETURNS ABOVE DIRECT EXPENSES				139.99
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	6.83	1.00	6.83
TRACTOR	ACRE	7.21	1.00	7.21
TOTAL FIXED EXPENSE				48.20
TOTAL SPECIFIED EXPENSES				266.31
NET RETURN				91.79

ble 30. Estimated cost and net returns per acre solid cotton, sandy soil, more efficient input practices, 8
w equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	750.00	300.00
COTTON SEED	LB	.05000	1162.00	58.10
TOTAL INCOME				358.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	7.51	17.28
OPERATOR LABOR	HOUR	2.30	2.86	6.58
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	1.10	9.07
COTORAN	LB	5.95	1.28	7.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.60	1.98
KARMEX (WP)	LB	3.20	.42	1.34
LOROX	LB	6.76	.67	4.53
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.57	1.00	3.57
TRACTOR	ACRE	11.91	1.00	11.91
INT ON OP CAP	ACRE	5.65	1.00	5.65
HAUL	LB	.01	750.00	8.51
GIN	LB	.08	750.00	60.00
TOTAL DIRECT EXPENSE				214.35
RETURNS ABOVE DIRECT EXPENSES				143.75
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	7.05	1.00	7.05
TRACTOR	ACRE	6.08	1.00	6.08
TOTAL FIXED EXPENSE				47.29
TOTAL SPECIFIED EXPENSES				261.64
NET RETURN				96.46

le 31. Estimated cost and net returns per acre solid cotton, sandy soil, limited seedbed preparation, 6 equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	767.00	306.80
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				366.25
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	7.58	17.44
OPERATOR LABOR	HOUR	2.30	2.66	6.11
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	1.10	9.07
KARMEX (DL)	LB	5.07	.32	1.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
COTORAN	LB	5.95	.80	4.76
MSMA + SURFACTANT	LB	1.24	1.60	1.98
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	2.79	1.00	2.79
TRACTOR	ACRE	11.04	1.00	11.04
INT ON OP CAP	ACRE	5.29	1.00	5.29
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				207.81
RETURNS ABOVE DIRECT EXPENSES				158.44
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	5.44	1.00	5.44
TRACTOR	ACRE	5.64	1.00	5.64
TOTAL FIXED EXPENSE				45.23
TOTAL SPECIFIED EXPENSES				253.04
NET RETURN				113.21

le 32. Estimated cost and net returns per acre solid cotton, sandy soil, limited seedbed preparation, 8 equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
COTTON LINT	LB	.40000	767.00	306.80
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				366.25
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	7.51	17.28
OPERATOR LABOR	HOUR	2.30	2.19	5.04
SPECIAL LABOR	HOUR	2.30	1.44	3.32
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	1.10	9.07
KARMEX (DL)	LB	5.07	.32	1.62
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
COTORAN	LB	5.95	.80	4.76
MSMA + SURFACTANT	LB	1.24	1.60	1.98
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	2.89	1.00	2.89
TRACTOR	ACRE	9.05	1.00	9.05
INT ON OP CAP	ACRE	5.10	1.00	5.10
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				204.51
RETURNS ABOVE DIRECT EXPENSES				161.74
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	5.62	1.00	5.62
TRACTOR	ACRE	4.61	1.00	4.61
TOTAL FIXED EXPENSE				44.39
TOTAL SPECIFIED EXPENSES				248.91
NET RETURN				117.34

le 33. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, high input practices, w equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	662.00	264.80
COTTON SEED	LB	.05000	1026.00	51.30
TOTAL INCOME				316.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.94	13.66
OPERATOR LABOR	HOUR	2.30	3.22	7.40
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	.98	8.08
COTORAN	LB	5.95	.86	5.10
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
MSMA + SURFACTANT	LB	1.24	5.07	6.29
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
KARMEX (WP)	LB	3.20	.28	.90
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.72	17.97
FUNDAL	LB	8.80	.50	4.41
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	4.56	1.00	4.56
TRACTOR	ACRE	13.53	1.00	13.53
INT ON OP CAP	ACRE	5.65	1.00	5.65
HAUL	LB	.01	662.00	7.51
GIN	LB	.08	662.00	52.96
TOTAL DIRECT EXPENSE				205.80
RETURNS ABOVE DIRECT EXPENSES				110.30
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	8.85	1.00	8.85
TRACTOR	ACRE	6.92	1.00	6.92
TOTAL FIXED EXPENSE				39.39
TOTAL SPECIFIED EXPENSES				245.19
NET RETURN				70.91

ble 34. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, high input practices, ow equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	662.00	264.80
COTTON SEED	LB	.05000	1026.00	51.30
TOTAL INCOME				316.10
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.86	13.48
OPERATOR LABOR	HOUR	2.30	2.58	5.92
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	.98	8.08
COTORAN	LB	5.95	.86	5.10
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
MSMA + SURFACTANT	LB	1.24	5.07	6.29
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
KARMEX (WP)	LB	3.20	.28	.90
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.72	17.97
FUNDAL	LB	8.80	.50	4.41
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	4.42	1.00	4.42
TRACTOR	ACRE	10.78	1.00	10.78
INT ON OP CAP	ACRE	5.46	1.00	5.46
HAUL	LB	.01	662.00	7.51
GIN	LB	.08	662.00	52.96
TOTAL DIRECT EXPENSE				201.06
RETURNS ABOVE DIRECT EXPENSES				115.04
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	8.56	1.00	8.56
TRACTOR	ACRE	5.51	1.00	5.51
TOTAL FIXED EXPENSE				37.68
TOTAL SPECIFIED EXPENSES				238.74
NET RETURN				77.36

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le 35. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, usual input practices, ow equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	643.00	257.20
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				307.05
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	6.57	15.11
OPERATOR LABOR	HOUR	2.30	2.98	6.85
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	.82	6.76
KARMEX (DL)	LB	5.07	.21	1.09
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.13	.62
MSMA + SURFACTANT	LB	1.24	2.23	2.77
COTORAN	LB	5.95	.54	3.19
KARMEX (WP)	LB	3.20	.13	.43
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.93	16.25
FUNDAL	LB	8.80	.54	4.77
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	4.08	1.00	4.08
TRACTOR	ACRE	12.51	1.00	12.51
INT ON OP CAP	ACRE	5.18	1.00	5.18
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				193.11
RETURNS ABOVE DIRECT EXPENSES				113.94
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	7.92	1.00	7.92
TRACTOR	ACRE	6.40	1.00	6.40
TOTAL FIXED EXPENSE				37.93
TOTAL SPECIFIED EXPENSES				231.04
NET RETURN				76.01

ble 36. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, usual input practices, ow equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	643.00	257.20
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				307.05
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	6.49	14.93
OPERATOR LABOR	HOUR	2.30	2.34	5.37
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
TREFLAN	LB	6.10	.50	3.05
FERT ANHY AMMONIA	CWT	8.25	.82	6.76
KARMEX (DL)	LB	5.07	.21	1.09
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.13	.62
MSMA + SURFACTANT	LB	1.24	2.23	2.77
COTORAN	LB	5.95	.54	3.19
KARMEX (WP)	LB	3.20	.13	.43
LOROX	LB	6.76	1.00	6.76
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.93	16.25
FUNDAL	LB	8.80	.54	4.77
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	3.94	1.00	3.94
TRACTOR	ACRE	9.76	1.00	9.76
INT ON OP CAP	ACRE	4.94	1.00	4.94
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				188.31
RETURNS ABOVE DIRECT EXPENSES				118.74
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	7.63	1.00	7.63
TRACTOR	ACRE	4.99	1.00	4.99
TOTAL FIXED EXPENSE				36.22
TOTAL SPECIFIED EXPENSES				224.53
NET RETURN				82.52

ble 37. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, more efficient input actices, 6 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	660.00	264.00
COTTON SEED	LB	.05000	1023.00	51.15
TOTAL INCOME				315.15
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.22	12.01
OPERATOR LABOR	HOUR	2.30	3.28	7.54
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	.74	6.10
COTORAN	LB	5.95	.86	5.10
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.13	.62
MSMA + SURFACTANT	LB	1.24	1.07	1.33
KARMEX (WP)	LB	3.20	.28	.90
LOROX	LB	6.76	.67	4.53
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	14.26	13.69
FUNDAL	LB	8.80	.42	3.67
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.49	1.00	15.49
EQUIPMENT	ACRE	3.43	1.00	3.43
TRACTOR	ACRE	13.79	1.00	13.79
INT ON OP CAP	ACRE	4.90	1.00	4.90
HAUL	LB	.01	660.00	7.49
GIN	LB	.08	660.00	52.80
TOTAL DIRECT EXPENSE				182.05
RETURNS ABOVE DIRECT EXPENSES				133.10
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.60	1.00	23.60
EQUIPMENT	ACRE	6.76	1.00	6.76
TRACTOR	ACRE	7.05	1.00	7.05
TOTAL FIXED EXPENSE				37.42
TOTAL SPECIFIED EXPENSES				219.47
NET RETURN				95.68

le 38. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, more efficient input ctices, 8 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	660.00	264.00
COTTON SEED	LB	.05000	1023.00	51.15
TOTAL INCOME				315.15
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.14	11.82
OPERATOR LABOR	HOUR	2.30	2.64	6.06
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	.74	6.10
COTORAN	LB	5.95	.86	5.10
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.13	.62
MSMA + SURFACTANT	LB	1.24	1.07	1.33
KARMEX (WP)	LB	3.20	.28	.90
LOROX	LB	6.76	.67	4.53
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	14.26	13.69
FUNDAL	LB	8.80	.42	3.67
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	3.29	1.00	3.29
TRACTOR	ACRE	11.04	1.00	11.04
INT ON OP CAP	ACRE	4.71	1.00	4.71
HAUL	LB	.01	660.00	7.49
GIN	LB	.08	660.00	52.80
TOTAL DIRECT EXPENSE				177.31
RETURNS ABOVE DIRECT EXPENSES				137.84
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	6.47	1.00	6.47
TRACTOR	ACRE	5.64	1.00	5.64
TOTAL FIXED EXPENSE				35.72
TOTAL SPECIFIED EXPENSES				213.03
NET RETURN				102.12

le 39. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, limited seedbed paration, 6 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	675.00	270.00
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				322.30
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.22	12.01
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	1.05	2.41
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	.74	6.10
KARMEX (DL)	LB	5.07	.21	1.09
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.13	.62
COTORAN	LB	5.95	.54	3.19
MSMA + SURFACTANT	LB	1.24	1.07	1.33
KARMEX (WP)	LB	3.20	.28	.90
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	14.26	13.69
FUNDAL	LB	8.80	.42	3.67
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.50	1.00	15.50
EQUIPMENT	ACRE	2.77	1.00	2.77
TRACTOR	ACRE	10.71	1.00	10.71
INT ON OP CAP	ACRE	4.42	1.00	4.42
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				172.20
RETURNS ABOVE DIRECT EXPENSES				150.10
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.61	1.00	23.61
EQUIPMENT	ACRE	5.37	1.00	5.37
TRACTOR	ACRE	5.48	1.00	5.48
TOTAL FIXED EXPENSE				34.46
TOTAL SPECIFIED EXPENSES				206.66
NET RETURN				115.64

ble 40. Estimated cost and net returns per acre 2 x 1 cotton, land basis, sandy soil, limited seedbed paration, 8 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	675.00	270.00
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				322.30
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.14	11.82
OPERATOR LABOR	HOUR	2.30	1.98	4.55
SPECIAL LABOR	HOUR	2.30	1.03	2.36
APPLY LIME X1/4	TON	12.50	.75	9.38
FERT ANHY AMMONIA	CWT	8.25	.74	6.10
KARMEX (DL)	LB	5.07	.21	1.09
TEMIK	LB	10.60	.20	2.13
SOIL TREATER XXX	LB	.96	.67	.64
SEED TRIPLE TREATED	LB	.28	18.50	5.13
BIDRIN	LB	4.59	.19	.85
COTORAN	LB	5.95	.54	3.19
MSMA + SURFACTANT	LB	1.24	1.07	1.33
KARMEX (WP)	LB	3.20	.28	.90
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	14.26	13.69
FUNDAL	LB	8.80	.42	3.67
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.38	1.00	15.38
EQUIPMENT	ACRE	2.64	1.00	2.64
TRACTOR	ACRE	8.24	1.00	8.24
INT ON OP CAP	ACRE	4.32	1.00	4.32
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				168.05
RETURNS ABOVE DIRECT EXPENSES				154.25
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	23.52	1.00	23.52
EQUIPMENT	ACRE	5.09	1.00	5.09
TRACTOR	ACRE	4.21	1.00	4.21
TOTAL FIXED EXPENSE				32.81
TOTAL SPECIFIED EXPENSES				200.86
NET RETURN				121.44

le 41. Estimated cost and net returns per acre solid cotton, clay soil, high input practices, 6 row equip-
it, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.63	19.85
OPERATOR LABOR	HOUR	2.30	2.88	6.62
SPECIAL LABOR	HOUR	2.30	1.44	3.32
TREFLAN	LB	6.10	1.00	6.10
FERT AMM NITRATE	CWT	8.02	4.48	35.93
KARMEX (DL)	LB	5.07	.80	4.06
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
MSMA + SURFACTANT	LB	1.24	5.60	6.94
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
COTORAN	LB	5.95	.80	4.76
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	21.36	20.51
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.04	1.00	4.04
TRACTOR	ACRE	11.98	1.00	11.98
INT ON OP CAP	ACRE	6.52	1.00	6.52
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				234.41
RETURNS ABOVE DIRECT EXPENSES				28.24
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	7.75	1.00	7.75
TRACTOR	ACRE	6.12	1.00	6.12
TOTAL FIXED EXPENSE				48.03
TOTAL SPECIFIED EXPENSES				282.44
NET RETURN				-19.79

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le 42. Estimated cost and net returns per acre solid cotton, clay soil, high input practices, 8 row equip-
t, Mississippi Delta, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.56	19.70
OPERATOR LABOR	HOUR	2.30	2.41	5.55
SPECIAL LABOR	HOUR	2.30	1.44	3.32
TREFLAN	LB	6.10	1.00	6.10
FERT AMM NITRATE	CWT	8.02	4.48	35.93
KARMEX (DL)	LB	5.07	.80	4.06
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
MSMA + SURFACTANT	LB	1.24	5.60	6.94
APPLY MSMA AIR X2	ACRE	1.50	2.00	3.00
COTORAN	LB	5.95	.80	4.76
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	21.36	20.51
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.24	1.00	4.24
TRACTOR	ACRE	9.99	1.00	9.99
INT ON OP CAP	ACRE	6.39	1.00	6.39
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				231.27
RETURNS ABOVE DIRECT EXPENSES				31.38
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	8.11	1.00	8.11
TRACTOR	ACRE	5.10	1.00	5.10
TOTAL FIXED EXPENSE				47.36
TOTAL SPECIFIED EXPENSES				278.64
NET RETURN				-15.99

le 43. Estimated cost and net returns per acre solid cotton, clay soil, usual practices, 6 row equipment, ssissippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.59	19.76
OPERATOR LABOR	HOUR	2.30	2.88	6.62
SPECIAL LABOR	HOUR	2.30	1.44	3.32
TREFLAN	LB	6.10	1.00	6.10
FERT AMM NITRATE	CWT	8.02	4.48	35.93
KARMEX (DL)	LB	5.07	.80	4.06
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.69	17.94
FUNDAL	LB	8.80	.63	5.60
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.04	1.00	4.04
TRACTOR	ACRE	11.98	1.00	11.98
INT ON OP CAP	ACRE	5.97	1.00	5.97
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				219.73
RETURNS ABOVE DIRECT EXPENSES				42.92
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	7.75	1.00	7.75
TRACTOR	ACRE	6.12	1.00	6.12
TOTAL FIXED EXPENSE				48.03
TOTAL SPECIFIED EXPENSES				267.75
NET RETURN				-5.10

le 44. Estimated cost and net returns per acre solid cotton, clay soil, usual practices, 8 row equipment, sissippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.52	19.61
OPERATOR LABOR	HOUR	2.30	2.41	5.55
SPECIAL LABOR	HOUR	2.30	1.44	3.32
TREFLAN	LB	6.10	1.00	6.10
FERT AMM NITRATE	CWT	8.02	4.48	35.93
KARMEX DL)	LB	5.07	.80	4.06
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	18.69	17.94
FUNDAL	LB	8.80	.63	5.50
APPLY INS AIR X3	ACRE	.80	3.00	2.40
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	4.24	1.00	4.24
TRACTOR	ACRE	9.99	1.00	9.99
INT ON OP CAP	ACRE	5.85	1.00	5.85
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				216.59
RETURNS ABOVE DIRECT EXPENSES				46.06
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	8.11	1.00	8.11
TRACTOR	ACRE	5.10	1.00	5.10
TOTAL FIXED EXPENSE				47.36
TOTAL SPECIFIED EXPENSES				263.96
NET RETURN				-1.31

ble 45. Estimated cost and net returns per acre solid cotton, clay soil, more efficient practices, spring edbed preparation, 6 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.58	19.74
OPERATOR LABOR	HOUR	2.30	2.74	6.30
SPECIAL LABOR	HOUR	2.30	1.44	3.32
FERT UREA-SOLID	CWT	7.70	3.33	25.64
COTORAN	LB	5.95	1.25	7.44
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.26	1.00	3.26
TRACTOR	ACRE	11.38	1.00	11.38
INT ON OP CAP	ACRE	5.17	1.00	5.17
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				199.73
RETURNS ABOVE DIRECT EXPENSES				62.92
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	6.36	1.00	6.36
TRACTOR	ACRE	5.81	1.00	5.81
TOTAL FIXED EXPENSE				46.33
TOTAL SPECIFIED EXPENSES				246.06
NET RETURN				16.59

le 46. Estimated cost and net returns per acre solid cotton, clay soil, more efficient practices, spring
dbed preparation, 8 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.51	19.58
OPERATOR LABOR	HOUR	2.30	2.19	5.04
SPECIAL LABOR	HOUR	2.30	1.44	3.32
FERT UREA-SOLID	CWT	7.70	3.33	25.64
COTORAN	LB	5.95	1.25	7.44
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.50	1.00	3.50
TRACTOR	ACRE	9.05	1.00	9.05
INT ON OP CAP	ACRE	5.00	1.00	5.00
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				196.06
RETURNS ABOVE DIRECT EXPENSES				66.59
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	6.78	1.00	6.78
TRACTOR	ACRE	4.61	1.00	4.61
TOTAL FIXED EXPENSE				45.55
TOTAL SPECIFIED EXPENSES				241.62
NET RETURN				21.03

le 47. Estimated cost and net returns per acre solid cotton, clay soil, more efficient practices, fall dbed preparation, 6 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.58	19.74
OPERATOR LABOR	HOUR	2.30	2.70	6.21
SPECIAL LABOR	HOUR	2.30	1.44	3.32
FERT UREA-SOLID	CWT	7.70	3.33	25.64
COTORAN	LB	5.95	1.25	7.44
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.48	1.00	3.48
TRACTOR	ACRE	11.21	1.00	11.21
INT ON OP CAP	ACRE	5.07	1.00	5.07
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				199.58
RETURNS ABOVE DIRECT EXPENSES				63.07
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	6.79	1.00	6.79
TRACTOR	ACRE	5.72	1.00	5.72
TOTAL FIXED EXPENSE				46.67
TOTAL SPECIFIED EXPENSES				246.26
NET RETURN				16.39

e 48. Estimated cost and net returns per acre solid cotton, clay soil, more efficient practices, fall bed preparation, 8 row equipment, Mississippi Delta, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.40000	550.00	220.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				262.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	8.51	19.58
OPERATOR LABOR	HOUR	2.30	2.23	5.13
SPECIAL LABOR	HOUR	2.30	1.44	3.32
FERT UREA-SOLID	CWT	7.70	3.33	25.64
COTORAN	LB	5.95	1.25	7.44
TEMIK	LB	10.60	.30	3.18
SOIL TREATER XXX	LB	.96	1.00	.96
SEED TRIPLE TREATED	LB	.28	27.50	7.63
BIDRIN	LB	4.59	.20	.92
MSMA + SURFACTANT	LB	1.24	1.86	2.31
KARMEX (WP)	LB	3.20	.42	1.34
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.96	16.02	15.38
FUNDAL	LB	8.80	.50	4.40
APPLY INS AIR X2	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	22.17	1.00	22.17
EQUIPMENT	ACRE	3.68	1.00	3.68
TRACTOR	ACRE	9.22	1.00	9.22
INT ON OP CAP	ACRE	4.94	1.00	4.94
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				196.45
RETURNS ABOVE DIRECT EXPENSES				66.20
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.15	1.00	34.15
EQUIPMENT	ACRE	7.15	1.00	7.15
TRACTOR	ACRE	4.70	1.00	4.70
TOTAL FIXED EXPENSE				46.01
TOTAL SPECIFIED EXPENSES				242.46
NET RETURN				20.19

Table 49. Estimated Yield[1]/Costs[2] (Returns)[3] per Acre, Cotton, by Soil Type, Planting Pattern, Equipment Size, and Level of Technology, Mississippi Delta, 1975.[4]

	--------Equipment size--------	
Level of Technology	---6 row----	---8 row----
	Sand - Solid	
	Lb./ ---$---	Lb./ ---$---
High input practices	752/295 (64)	752/290 (69)
Usual input practices	730/279 (69)	730/275 (74)
More efficient input practices	750/266 (92)	750/262 (96)
More efficient input practices with limited seedbed preparation	767/253 (113)	767/249 (117)
	Sand - 2x1 (Land Acre)	
High input practices	662/245 (71)	662/239 (77)
Usual input practices	643/231 (76)	643/225 (83)
More efficient input practices	660/219 (96)	660/213 (102)
More efficient input practices with limited seedbed preparation	675/207 (116)	675/201 (121)
	Clay - Solid	
High input practices	550/282 (-20)	550/279 (-16)
Usual input practices	550/268 (-5)	550/264 (-1)
More efficient input practices with spring seedbed preparation	550/246 (17)	550/242 (21)
More efficient input practices with fall seedbed preparation	550/246 (16)	550/242 (20)

[1] Pounds of lint; pounds of seed equal 1.55 times pounds of lint.

[2] Specified costs, see Tables 1-24, dollars.

[3] Returns to land, management and general farm overhead, dollars.

[4] Based on an assumed price of lint of $.40/lb. and price of seed of $.05/lb.

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SPECIFIC INPUTS AND PRICES ASSOCIATED WITH SOYBEAN PRODUCTION COSTS FOR THE MISSISSIPPI DELTA, 1975

By D. W. Parvin, Jr., J. M. Anderson, F. T. Cooke, Jr., S. H. Holder, Jr. and J. G. Hamill

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SPECIFIC INPUTS AND PRICES ASSOCIATED WITH SOYBEAN PRODUCTION COSTS FOR THE MISSISSIPPI DELTA, 1975

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Special appreciation is extended to the cooperating soybean producers who provided the basic information on practices used in this study. The various tractor and equipment dealers and other input dealers who provided information on current and projected prices are gratefully acknowledged. Appreciation is extended to Mrs. Nettie Ward for typing the manuscript. Computer assistance provided by S. M. Toney, Graduate Assistant, Department of Agricultural Economics, Mississippi State University, is acknowledged.

FOREWORD

This publication was prepared for farmers and other individuals already familiar with the production of soybeans in the Mississippi Delta. The primary purpose of the manuscript is to report production costs expected to be appropriate for the 1975 crop year. This manuscript reports detailed information on inputs and prices. It supplements Experiment Station Bulletin 834 (3) entitled "Crop Budgets and Planning Data for Major Farm Enterprises in the Mississippi and Louisiana Delta, 1975".

SPECIFIC INPUTS AND PRICES ASSOCIATED WITH SOYBEAN PRODUCTION COSTS FOR THE MISSISSIPPI DELTA, 1975

Before he plants crops each year, a progressive farmer analyzes information available to him and decides how to organize his farm. Generally, he has in mind "expected prices and yield", and the prices and quantities of the inputs required for the different crops that he can produce. Given these expectations and an inventory of his land, labor, machinery and operating capital, he can reach a more rational decision about what crops and how much of each to try to produce (4).

This publication has been prepared to report estimated production costs for soybeans in the Mississippi Delta for the 1975 crop year. These costs are then used to develop estimated returns above specified costs for selected yields and prices.

PROCEDURE

The basic technique used in this report is budgeting[1/]. Data on practices were collected during July and August, 1974. Tractor and equipment prices used in this report were obtained from retail dealers in the Mississippi Delta during late November and December, 1974. Prices of other agricultural inputs were obtained by interviewing the major suppliers of

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[1/] Budgeting is the costing of an enterprise on an operation by operation basis. See (1) and (2) for additional technical information concerning budgeting. See (3) for specific information on machinery costs and related assumptions such as rate of depreciation, repairs, interest rates, etc. used in this report.

agricultural inputs in the Mississippi Delta. All prices used in this report are those expected[2/] to prevail in the Spring of 1975.

BUDGETS

Estimated Costs Per Acre By Operation

Estimated costs per acre, detailed by operation, are presented in Tables 1-16[3/]. Production practices are those occurring most frequently in the Delta. The fourth column in Tables 1-16 identified as "TR" indicates tractor size. Tractor size 1 represents a 90-100 DBHP[4/] tractor used 1,000 hours each year. Tractor size 3 represents a 110-120 DBHP tractor with the same number of hours of annual use.

Equipment costs reflect varying hours of annual use ranging from 100 for subsoilers to 200 for cultivators. Soybean combines were assumed to be used 200 hours each year. All labor is charged at a rate of $2.30 per hour. However, labor is divided into common, operator and special labor. Special labor refers to driver time for self propelled equipment, i.e. combines. Operator labor denotes tractor driver time, and common labor refers to all other labor. Herbicide use is expressed in pounds of active ingredients per acre.

The column entitled "TIMES OVER" generally indicates annual trips over the field. However, these budgets were generated by a computerized budget

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[2/] These expected prices are late 1974 prices adjusted by the authors after consultation with individuals known to be familiar with prices in their respective fields.

[3/] For convenience, all tables are placed after the text. Tables 1-16 appear on pages 5-20.

[4/] Drawbar horsepower - Nebraska rating.

writer[5] utilizing stored files of information and the "TIMES OVER" feature is also used as a multiplier or constant to adjust stored information. For example, a "TIMES OVER" value of 1.10 for seed and planting indicates a 10% replanting rate.

The columns under miscellaneous list inputs for custom operations and other operations, such as hauling, that are not divided into tractor, equipment, and labor charges or into direct and fixed cost. In Tables 1-16, operations requiring more than one line to describe are indented and followed by a summary line.

Estimated Costs and Net Returns

Tables 17-32 (pages 21-36) report estimated costs and net returns per acre for 1975, and summarize costs as direct or fixed expense items. Special equipment refers to self-propelled equipment. Equipment denotes towed equipment. Net return is computed as return above specified cost. Thus, it is the return to land, management and general farm overhead.

Table 33 (page 37) summarizes the information presented in Tables 17-32. Specified production costs range from $51 to $66 per acre. Returns above specified costs range from $72 to $123 per acre.

DISCUSSION

The estimates presented in this bulletin are based on production practices occurring most frequently in the Delta, on yields normally associated with these practices and on early 1975 price expectations for soybeans. Producers are encouraged to interpret our budgets in light of their yield histories and to use their most current price expectations to calculate estimates of their returns.

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[5] The addition routine utilized by the budget writer can generate totals which appear to be one or two cents in error.

TABLE 1. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT. MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
SUBSOILER 2 ROW X1/3	ACRE	3	3	.33	.20	.87	.45	1.32	.20	.08	.14	.22	.00	.20	.00	.00	.47	.00	.47	.00	.0000	.00	.00	.0000	.00	2.01
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOP 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB GROUND	ACRE	5	1	1.00	.08	.26	.13	.39	.08	.45	.34	.79	.00	.08	.00	.00	.18	.00	.18	.00	.0000	.00	.00	.0000	.00	1.37
					.08	.26	.13	.39	.08	.45	.34	.79	.00	.08	.00	.00	.18	.00	.18			3.24			.00	4.61
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					2.13	8.99	4.60	13.60	2.36	7.03	10.83	17.86	.26	2.13	.23	.61	4.90	.53	6.03			19.29			2.00	58.78

TABLE 2. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
SUBSOILER 2 ROW X1/3	ACRE	3	3	.33	.20	.87	.45	1.32	.20	.08	.14	.22	.00	.20	.00	.00	.47	.00	.47	.00	.0000	.00	.00	.0000	.00	2.01
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB GROUND	ACRE	5	1	1.00	.08	.26	.13	.39	.08	.45	.34	.79	.00	.08	.00	.00	.18	.00	.18	.00	.0000	.00	.00	.0000	.00	1.37
					.08	.26	.13	.39	.08	.45	.34	.79	.00	.08	.00	.00	.18	.00	.18			3.24			.00	4.61
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					1.84	7.78	3.98	11.76	2.07	7.20	11.11	18.31	.22	1.84	.23	.51	4.24	.53	5.29			19.29			2.00	56.64

TABLE 3. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.27	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATF EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	22.00	.0800	1.76	1.76
					1.84	7.85	4.03	11.88	2.07	6.50	10.35	16.85	.26	1.84	.23	.61	4.24	.53	5.38			16.05			1.76	51.92

TABLE 4. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.1000	3.05	.00	.0000	.00	3.05
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			3.05			.00	6.15
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.75	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	22.00	.0800	1.76	1.76
					1.56	6.64	3.40	10.05	1.79	6.67	10.64	17.30	.22	1.56	.23	.51	3.59	.53	4.62			16.05			1.76	49.78

TABLE 5. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, MORE EFFICIENT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
SUBSOILER 2 ROW X1/3	ACRE	3	3	.33	.20	.87	.45	1.32	.20	.08	.14	.22	.00	.20	.00	.00	.47	.00	.47	.00	.0000	.00	.00	.0000	.00	2.01
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
LOROX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.85	6.7600	5.75	.00	.0000	.00	5.75
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT + PRE	ACRE	5	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			16.77			.00	20.31
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					1.66	7.08	3.63	10.71	1.89	5.97	9.52	15.49	.31	1.66	.23	.71	3.82	.53	5.06			18.75			2.00	52.01

TABLE 6. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, SANDY SOIL, MORE EFFICIENT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIALS			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
SUBSOILER 2 ROW X1/3	ACRE	3	3	.33	.20	.87	.45	1.32	.20	.08	.14	.22	.00	.20	.00	.00	.47	.00	.47	.00	.0000	.00	.00	.0000	.00	2.01
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
LOROX	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.85	6.7600	5.75	.00	.0000	.00	5.75
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT + PRE	ACRE	5	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			16.77			.00	19.39
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					1.39	5.90	3.03	8.93	1.62	6.10	9.71	15.81	.24	1.39	.23	.56	3.19	.53	4.27			18.75			2.00	49.76

TABLE 7. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS				EQUIPMENT HOURS				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	56.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB ATR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			3.24			1.50	4.74
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DOWPON	LB	7	0	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	1.4000	.70	.00	.0000	.00	.70
SPOT HERB-HAND LABOR	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	1.15	.00	.00	1.15	.00	.0000	.00	.00	.0000	.00	1.15
					.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	1.15	.00	.00	1.15			.70			.00	1.85
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	24.00	.0800	1.92	1.92
					1.90	8.11	4.16	12.27	2.13	7.03	11.26	18.29	.76	1.90	.23	1.76	4.38	.53	6.67			23.04			3.42	63.68

TABLE 8. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS				EQUIPMENT HOURS				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	3	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB AIR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			3.24			1.50	4.74
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DOWPON	LB	7	0	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	1.4000	.70	.00	.0000	.00	.70
SPOT HERB-HAND LABOR	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	1.15	.00	.00	1.15	.00	.0000	.00	.00	.0000	.00	1.15
					.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	1.15	.00	.00	1.15			.70			.00	1.85
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	24.00	.0800	1.92	1.92
					1.62	6.90	3.54	10.43	1.65	7.20	11.55	18.74	.72	1.62	.23	1.66	3.73	.53	5.91			23.04			3.42	61.55

TABLE 9. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB AIR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			3.24			1.50	4.74
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.49	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	23.00	.0800	1.84	1.84
					1.65	7.04	3.61	10.65	1.68	6.86	10.97	17.83	.26	1.65	.23	.61	3.80	.53	4.94			22.34			3.34	59.10

TABLE 10. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
DYANAP	PT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	.8100	3.24	.00	.0000	.00	3.24
APPLY HERB AIR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	1.5000	1.50	1.50
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			3.24			1.50	4.74
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	23.00	.0800	1.84	1.84
					1.40	5.96	3.05	9.01	1.63	7.03	11.26	18.28	.22	1.40	.23	.51	3.22	.53	4.25			22.34			3.34	57.23

TABLE 11. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, MORE EFFICIENT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.73	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					1.51	6.45	3.30	9.75	1.74	6.52	10.35	16.87	.26	1.51	.23	.61	3.48	.53	4.62			19.10			2.00	52.34

TABLE 12. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, MORE EFFICIENT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	25.00	.0800	2.00	2.00
					1.26	5.36	2.75	8.11	1.49	6.69	10.64	17.32	.22	1.26	.23	.51	2.90	.53	3.93			19.10			2.00	50.47

TABLE 13. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, PLANTED BEHIND RICE, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK * INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.73	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.02
PLANT	ACRE	5	3	1.10	.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71	.00	.0000	.00	.00	.0000	.00	2.65
					.15	.66	.34	.99	.15	.30	.65	.95	.15	.15	.00	.35	.35	.00	.71			11.02			.00	13.67
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.27	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT * POST LATE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			1.98			.00	4.20
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.7600	3.38	.00	.0000	.00	3.38
CULT * POST LATE	ACRE	7	3	1.00	.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.22
					.18	.77	.39	1.16	.18	.22	.42	.64	.00	.18	.00	.00	.41	.00	.41			3.38			.00	5.60
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	28.00	.0800	2.24	2.24
					1.73	7.38	3.79	11.17	1.96	7.15	11.45	18.60	.26	1.73	.23	.61	3.99	.53	5.12			22.48			2.24	59.61

TABLE 14. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, PLANTED BEHIND RICE, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
TREFLAN	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	6.1000	6.10	.00	.0000	.00	6.10
DISK + INCOR 21 FT	ACRE	4	3	1.00	.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	3.10
					.18	.77	.39	1.16	.18	.56	.96	1.52	.00	.18	.00	.00	.41	.00	.41			6.10			.00	9.20
DISK HARROW 21 FT	ACRE	3	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66.00	.1670	11.02	.00	.0000	.00	11.82
PLANT	ACRE	5	3	1.10	.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51	.00	.0000	.00	.00	.0000	.00	2.12
					.11	.47	.24	.71	.11	.29	.62	.90	.11	.11	.00	.25	.25	.00	.51			11.02			.00	13.14
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.18	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
DINITRO	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50	1.3200	1.98	.00	.0000	.00	1.98
CULT + POST LATE	ACRE	6	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			1.98			.00	3.82
LOROX	LB	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	6.7600	3.38	.00	.0000	.00	3.38
CULT + POST LATE	ACRE	7	3	1.00	.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.84
					.13	.56	.28	.84	.13	.24	.46	.70	.00	.13	.00	.00	.30	.00	.30			3.38			.00	5.22
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	28.00	.0800	2.24	2.24
					1.47	6.26	3.21	9.47	1.70	7.32	11.75	19.06	.22	1.47	.23	.51	3.38	.53	4.42			22.48			2.24	57.67

TABLE 15. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, PLANTED BEHIND WHEAT, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL					TRACTOR				EQUIPMENT				LABOR HOURS			$-LABOR COST				MATERIAL			MISCELLANEOUS			
DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
ROW CONDITION	ACRE	6	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	60.00	.1670	10.02	.00	.0000	.00	10.02
SENCOR	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	14.9200	4.77	.00	.0000	.00	4.77
PLANT + PRE	ACRE	6	3	1.00	.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83	.00	.0000	.00	.00	.0000	.00	3.22
					.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83			14.79			.00	18.02
TRAILER	ACRE	6	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
					.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30			.00			.00	.50
CULTIVATE EARLY	ACRE	7	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
CULTIVATE LATE	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	18.00	.0800	1.44	1.44
					1.26	5.36	2.75	8.11	1.49	6.22	9.79	16.01	.29	1.26	.23	.67	2.90	.53	4.09			14.79			1.44	44.45

TABLE 16. ESTIMATED COST PER ACRE BY OPERATION, SOYBEANS, CLAY SOIL, PLANTED BEHIND WHEAT, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL				TIMES	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
DESCRIPTION	UNIT	NO	TR	OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
ROW CONDITION	ACRE	6	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.78	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	60.00	.1670	10.02	.00	.0000	.00	10.02
SENCOR	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	14.9200	4.77	.00	.0000	.00	4.77
PLANT + PRE	ACRE	6	3	1.00	.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55	.00	.0000	.00	.00	.0000	.00	2.39
					.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55			14.79			.00	17.18
TRAILER	ACRE	6	1	1.00	.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30	.00	.0000	.00	.00	.0000	.00	.50
					.02	.07	.03	.10	.02	.03	.07	.10	.11	.02	.00	.25	.05	.00	.30			.00			.00	.50
CULTIVATE EARLY	ACRE	7	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.73	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE LATE	ACRE	7	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
COMBINE 20 FT	ACRE	10	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	10	1	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	18.00	.0800	1.44	1.44
					1.04	4.42	2.27	6.69	1.27	6.33	9.95	16.28	.23	1.04	.23	.53	2.39	.53	3.45			14.79			1.44	42.65

BLE 17. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY SOIL, HIGH PUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	2.13	4.90
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	.50	3.05
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.04	1.00	3.04
TRACTOR	ACRE	8.99	1.00	8.99
INT ON OP CAP	ACRE	1.76	1.00	1.76
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				45.11
RETURNS ABOVE DIRECT EXPENSES				117.39
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.36	1.00	5.36
TRACTOR	ACRE	4.60	1.00	4.60
TOTAL FIXED EXPENSE				15.43
TOTAL SPECIFIED EXPENSES				60.54
NET RETURN				101.96

TABLE 18. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY SOIL, HI INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	1.84	4.24
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	.50	3.05
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.21	1.00	3.21
TRACTOR	ACRE	7.78	1.00	7.78
INT ON OP CAP	ACRE	1.69	1.00	1.69
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				43.24
RETURNS ABOVE DIRECT EXPENSES				119.26
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.64	1.00	5.64
TRACTOR	ACRE	3.98	1.00	3.98
TOTAL FIXED EXPENSE				15.10
TOTAL SPECIFIED EXPENSES				58.34
NET RETURN				104.16

BLE 19. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY SOIL, UAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	22.00	143.00
TOTAL INCOME				143.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	1.84	4.24
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	.50	3.05
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.51	1.00	2.51
TRACTOR	ACRE	7.85	1.00	7.85
INT ON OP CAP	ACRE	1.49	1.00	1.49
HAUL	BU	.08	22.00	1.76
TOTAL DIRECT EXPENSE				39.03
RETURNS ABOVE DIRECT EXPENSES				103.97
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.88	1.00	4.88
TRACTOR	ACRE	4.03	1.00	4.03
TOTAL FIXED EXPENSE				14.38
TOTAL SPECIFIED EXPENSES				53.41
NET RETURN				89.59

TABLE 20. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY S USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	22.00	143.00
TOTAL INCOME				143.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	1.56	3.59
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	.50	3.05
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.68	1.00	2.68
TRACTOR	ACRE	6.64	1.00	6.64
INT ON OP CAP	ACRE	1.42	1.00	1.42
HAUL	BU	.08	22.00	1.76
TOTAL DIRECT EXPENSE				37.16
RETURNS ABOVE DIRECT EXPENSES				105.84
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.17	1.00	5.17
TRACTOR	ACRE	3.40	1.00	3.40
TOTAL FIXED EXPENSE				14.04
TOTAL SPECIFIED EXPENSES				51.20
NET RETURN				91.80

BLE 21. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY SOIL, MORE FICIENT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.31	.71
OPERATOR LABOR	HOUR	2.30	1.66	3.82
SPECIAL LABOR	HOUR	2.30	.23	.53
LOROX	LB	6.76	.85	5.75
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	1.98	1.00	1.98
TRACTOR	ACRE	7.08	1.00	7.08
INT ON OP CAP	ACRE	1.50	1.00	1.50
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				40.36
RETURNS ABOVE DIRECT EXPENSES				122.14
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.05	1.00	4.05
TRACTOR	ACRE	3.63	1.00	3.63
TOTAL FIXED EXPENSE				13.15
TOTAL SPECIFIED EXPENSES				53.51
NET RETURN				108.99

TABLE 22. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, SANDY SOIL, MO EFFICIENT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.24	.56
OPERATOR LABOR	HOUR	2.30	1.39	3.19
SPECIAL LABOR	HOUR	2.30	.23	.53
LOROX	LB	6.76	.85	5.75
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.11	1.00	2.11
TRACTOR	ACRE	5.90	1.00	5.90
INT ON OP CAP	ACRE	1.43	1.00	1.43
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				38.45
RETURNS ABOVE DIRECT EXPENSES				124.05
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.24	1.00	4.24
TRACTOR	ACRE	3.03	1.00	3.03
TOTAL FIXED EXPENSE				12.74
TOTAL SPECIFIED EXPENSES				51.18
NET RETURN				111.32

BLE 23. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, HIGH PUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	24.00	156.00
TOTAL INCOME				156.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.76	1.76
OPERATOR LABOR	HOUR	2.30	1.90	4.38
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
APPLY HERB AIR	ACRE	1.50	1.00	1.50
DINITRO	LB	1.32	1.50	1.98
DOWPON	LB	1.40	.50	.70
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.04	1.00	3.04
TRACTOR	ACRE	8.11	1.00	8.11
INT ON OP CAP	ACRE	1.94	1.00	1.94
HAUL	BU	.08	24.00	1.92
TOTAL DIRECT EXPENSE				50.21
RETURNS ABOVE DIRECT EXPENSES				105.79
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.79	1.00	5.79
TRACTOR	ACRE	4.16	1.00	4.16
TOTAL FIXED EXPENSE				15.42
TOTAL SPECIFIED EXPENSES				65.62
NET RETURN				90.38

TABLE 24. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, HI INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	24.00	156.00
TOTAL INCOME				156.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.72	1.66
OPERATOR LABOR	HOUR	2.30	1.62	3.73
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
APPLY HERB AIR	ACRE	1.50	1.00	1.50
DINITRO	LB	1.32	1.50	1.98
DOWPON	LB	1.40	.50	.70
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.21	1.00	3.21
TRACTOR	ACRE	6.90	1.00	6.90
INT ON OP CAP	ACRE	1.87	1.00	1.87
HAUL	BU	.08	24.00	1.92
TOTAL DIRECT EXPENSE				48.34
RETURNS ABOVE DIRECT EXPENSES				107.66
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	6.08	1.00	6.08
TRACTOR	ACRE	3.54	1.00	3.54
TOTAL FIXED EXPENSE				15.08
TOTAL SPECIFIED EXPENSES				63.42
NET RETURN				92.58

BLE 25. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, USUAL PUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	1.65	3.80
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
APPLY HERB AIR	ACRE	1.50	1.00	1.50
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.87	1.00	2.87
TRACTOR	ACRE	7.04	1.00	7.04
INT ON OP CAP	ACRE	1.78	1.00	1.78
HAUL	BU	.08	23.00	1.84
TOTAL DIRECT EXPENSE				46.30
RETURNS ABOVE DIRECT EXPENSES				103.20
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.50	1.00	5.50
TRACTOR	ACRE	3.61	1.00	3.61
TOTAL FIXED EXPENSE				14.58
TOTAL SPECIFIED EXPENSES				60.88
NET RETURN				88.62

TABLE 26. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, USU INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	1.40	3.22
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DYANAP	PT	.81	4.00	3.24
APPLY HERB AIR	ACRE	1.50	1.00	1.50
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.04	1.00	3.04
TRACTOR	ACRE	5.96	1.00	5.96
INT ON OP CAP	ACRE	1.72	1.00	1.72
HAUL	BU	.08	23.00	1.84
TOTAL DIRECT EXPENSE				44.64
RETURNS ABOVE DIRECT EXPENSES				104.86
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.79	1.00	5.79
TRACTOR	ACRE	3.05	1.00	3.05
TOTAL FIXED EXPENSE				14.31
TOTAL SPECIFIED EXPENSES				58.95
NET RETURN				90.55

BLE 27. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, MORE FICIENT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	1.51	3.48
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.53	1.00	2.53
TRACTOR	ACRE	6.45	1.00	6.45
INT ON OP CAP	ACRE	1.53	1.00	1.53
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				40.21
RETURNS ABOVE DIRECT EXPENSES				122.29
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.88	1.00	4.88
TRACTOR	ACRE	3.30	1.00	3.30
TOTAL FIXED EXPENSE				13.65
TOTAL SPECIFIED EXPENSES				53.86
NET RETURN				108.64

TABLE 28. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, MO EFFICIENT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	25.00	162.50
TOTAL INCOME				162.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	1.26	2.90
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.70	1.00	2.70
TRACTOR	ACRE	5.36	1.00	5.36
INT ON OP CAP	ACRE	1.46	1.00	1.46
HAUL	BU	.08	25.00	2.00
TOTAL DIRECT EXPENSE				38.54
RETURNS ABOVE DIRECT EXPENSES				123.96
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.17	1.00	5.17
TRACTOR	ACRE	2.75	1.00	2.75
TOTAL FIXED EXPENSE				13.38
TOTAL SPECIFIED EXPENSES				51.93
NET RETURN				110.57

BLE 29. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, ANTED BEHIND RICE, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	28.00	182.00
TOTAL INCOME				182.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	1.73	3.99
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	66.00	11.02
DINITRO	LB	1.32	1.50	1.98
LOROX	LB	6.76	.50	3.38
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.16	1.00	3.16
TRACTOR	ACRE	7.38	1.00	7.38
INT ON OP CAP	ACRE	1.75	1.00	1.75
HAUL	BU	.08	28.00	2.24
TOTAL DIRECT EXPENSE				46.13
RETURNS ABOVE DIRECT EXPENSES				135.87
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	5.98	1.00	5.98
TRACTOR	ACRE	3.79	1.00	3.79
TOTAL FIXED EXPENSE				15.23
TOTAL SPECIFIED EXPENSES				61.36
NET RETURN				120.64

TABLE 30. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SC
PLANTED BEHIND RICE, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	28.00	182.00
TOTAL INCOME				182.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	1.47	3.38
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.10	1.00	6.10
SEED	LB	.17	65.00	11.02
DINITRO	LB	1.32	1.50	1.98
LOROX	LB	6.76	.50	3.38
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	3.33	1.00	3.33
TRACTOR	ACRE	6.26	1.00	6.26
INT ON OP CAP	ACRE	1.68	1.00	1.68
HAUL	BU	.08	28.00	2.24
TOTAL DIRECT EXPENSE				44.40
RETURNS ABOVE DIRECT EXPENSES				137.60
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	6.28	1.00	6.28
TRACTOR	ACRE	3.21	1.00	3.21
TOTAL FIXED EXPENSE				14.95
TOTAL SPECIFIED EXPENSES				59.35
NET RETURN				122.65

BLE 31. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SOIL, ANTED BEHIND WHEAT, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
SOYBEANS	BU	6.50000	18.00	117.00
TOTAL INCOME				117.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.29	.67
OPERATOR LABOR	HOUR	2.30	1.26	2.90
SPECIAL LABOR	HOUR	2.30	.23	.53
SEED	LB	.17	60.00	10.02
SENCOR	LB	14.92	.32	4.77
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.23	1.00	2.23
TRACTOR	ACRE	5.36	1.00	5.36
INT ON OP CAP	ACRE	.99	1.00	.99
HAUL	BU	.08	18.00	1.44
TOTAL DIRECT EXPENSE				32.90
RETURNS ABOVE DIRECT EXPENSES				84.10
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.32	1.00	4.32
TRACTOR	ACRE	2.75	1.00	2.75
TOTAL FIXED EXPENSE				12.54
TOTAL SPECIFIED EXPENSES				45.44
NET RETURN				71.56

TABLE 32. ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, CLAY SO
PLANTED BEHIND WHEAT, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	18.00	117.00
TOTAL INCOME				117.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.23	.53
OPERATOR LABOR	HOUR	2.30	1.04	2.39
SPECIAL LABOR	HOUR	2.30	.23	.53
SEED	LB	.17	60.00	10.02
SENCOR	LB	14.92	.32	4.77
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	2.34	1.00	2.34
TRACTOR	ACRE	4.42	1.00	4.42
INT ON OP CAP	ACRE	.94	1.00	.94
HAUL	BU	.08	18.00	1.44
TOTAL DIRECT EXPENSE				31.38
RETURNS ABOVE DIRECT EXPENSES				85.62
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	4.48	1.00	4.48
TRACTOR	ACRE	2.27	1.00	2.27
TOTAL FIXED EXPENSE				12.22
TOTAL SPECIFIED EXPENSES				43.59
NET RETURN				73.41

Table 33. Estimated yields, costs[1] and returns[2] per acre, soybeans, by soil type, equipment size and level of technology, Mississippi Delta, 1975.

Level of Technology	Equipment Size					
	6-Row			8-Row		
	Yield	Cost	Returns	Yield	Cost	Returns
	-bu.-	-----dollars------		-bu.-	----dollars------	
			Sandy Soil			
High input practices	25	61	102	25	58	104
Usual input practices	22	54	90	22	58	92
More efficient input practices	25	54	109	25	51	111
			Clay Soil			
High input practices	24	66	90	24	63	93
Usual input practices	23	61	89	23	60	91
More efficient input practices	25	54	109	25	52	111
Planted behind rice	28	61	121	28	59	123
Planted behind wheat	18	45	72	18	44	73

---

[1] Specified costs (see Tables 1-16)

[2] Returns to land, management and general farm overhead based on an assumed price of $6.50 per bushel.

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SPECIFIC INPUTS AND PRICES FOR FOOD GRAINS, FEED GRAINS AND SILAGE CROPS, MISSISSIPPI DELTA, 1975

By

D. W. Parvin, Jr., J. G. Hamill,
J. M. Anderson, and F. T. Cooke, Jr.

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ACKNOWLEDGEMENTS

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FOREWORD

The primary purpose of the manuscript is to report production costs expected to be appropriate for the 1975 crop year. This manuscript reports detailed information on inputs and prices. It supplements Experiment Station Bulletin 834 (3) entitled "Crop Budgets and Planning Data for Major Farm Enterprises in the Mississippi and Louisiana Delta, 1975".

SPECIFIC INPUTS AND PRICES FOR FOOD GRAINS, FEED GRAINS AND SILAGE CROPS, MISSISSIPPI DELTA, 1975

Before he plants crops each year, a progressive farmer analyzes information available to him and decides how to organize his farm. Generally, he has in mind "expected prices and yields", and the prices and quantities of the inputs required for the different crops that he can produce. Given these expectations and an inventory of his land, labor, machinery and operating capital, he can reach a more rational decision about what crops and how much of each to try to produce (4).

PROCEDURE

The basic technique utilized in this report is budgeting[1/]. Data on practices were collected during July and August, 1974. Tractor and equipment prices used in this report were obtained from retail dealers in the Mississippi Delta during late November and December, 1974. Prices of other inputs were obtained by interviewing the major suppliers of agricultural inputs in the Mississippi Delta. All prices utilized in this report are those expected[2/] to prevail in the Spring of 1975.

[1/] Budgeting is the costing of an enterprise on an operation by operation basis. See (1) and (2) for additional technical information concerning budgeting. See (3) for specific information on machinery costs and related assumptions such as rate of depreciation, repairs, interest rates, etc. used in this report.

[2/] These expected prices are late 1974 prices adjusted by the authors after consultation with individuals known to be familiar with prices in their respective fields.

BUDGETS

Estimated Costs Per Acre By Operation

Estimated costs per acre, detailed by operation, are presented in Tables 1-15[3/]. Production practices are those occurring most frequently in the Delta. The fourth column in Tables 1-15, identified as "TR" indicates tractor size. Tractor size 1 represents a 90-100 DBHP[4/] tractor used 1,000 hours each year. Tractor size 3 represents a 100-120 DBHP tractor with the same number of hours of annual use.

Equipment costs reflect varying hours of annual use ranging from 100 for subsoilers to 200 for cultivators. Combines were assumed to be used 200 hours each year. All labor is charged at a rate of $2.30 per hour. However, labor is divided into common, operator and special labor. Special labor refers to driver time for self propelled equipment, i.e. combines. Operator labor denotes tractor driver time, and common labor refers to all other labor. Herbicide use is expressed in pounds of active ingredients per acre.

The column entitled "TIMES OVER" generally indicates annual trips over the field. However, these budgets were generated by a computerized budget writer[5/] using stored files of information and the "TIMES OVER" feature is also used as a multiplier or constant to adjust stored information. For example, a "TIMES OVER" value of 1.10 for seed and planting indicates a 10% replanting rate.

[3/] For convenience, all tables are placed after the text. Tables 1-15 appear on pages 4-19.

[4/] Drawbar horsepower - Nebraska rating.

[5/] The addition routine utilized by the budget writer can generate totals which appear to be one or two cents in error.

The columns under miscellaneous list inputs for custom operations and other operations, such as hauling, that are not divided into tractor, equipment, and labor charges or into direct and fixed cost. In Tables 1-15, operations requiring more than one line to describe are indented and followed by a summary line.

Estimated Costs And Net Returns

Tables 16-30 (pages 20-34) report estimated costs and net returns per acre for 1975, and summarize costs as direct or fixed expense items.[6/] Special equipment refers to self-propelled equipment. Equipment denotes towed equipment. Net return is computed as return above specified cost. Thus, it is the return to land, management and general farm overhead.

DISCUSSION

The estimates presented in this bulletin are based on production practices occurring most frequently in the Delta, on yields normally associated with these practices and on early 1975 price expectations for crops. Producers are encouraged to interpret our budgets in light of their yield histories and to use their current price expectations to calculate estimates of returns for different crops.

[6/] Therefore, these Tables are also included for those budgets which do not directly generate income.

TABLE 1. ESTIMATED COST PER ACRE BY OPERATION, RICE BEHIND RICE, CLAY SOIL, HIGH INPUT PRACTICES, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK LEVEE	ACRE	4	3	1.00	.04	.17	.09	.26	.04	.05	.08	.13	.00	.04	.00	.00	.09	.00	.09	.00	.0000	.00	.00	.0000	.00	.48
CHISEL PLOW 15 FT	ACRE	4	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
PIPE 30 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.03	.10	.13	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.01
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.16	.00	.00	.16	.00	.0000	.00	.00	.0000	.00	.16
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	135.00	.1720	23.22	.00	.0000	.00	23.22
PLANT-AIR	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.35	2.0000	2.70	2.70
					.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.16	.00	.00	.16			23.22			2.70	26.08
DISK HARROW 21 FT	ACRE	5	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
LEVEL	ONE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	.1700	.17	.17
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.55	.00	.00	.55	.00	.0000	.00	.00	.0000	.00	.55
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.28	.00	.0000	.00	.00	.0000	.00	.28
SURVEY AND MARK	ACRE	5	1	1.00	.12	.40	.19	.59	.12	.00	.00	.00	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	.87
					.12	.40	.19	.59	.12	.00	.00	.00	.24	.12	.12	.55	.28	.28	1.10			.00			.17	1.86
PULL LEVEE X3	ACRE	5	3	3.00	.12	.51	.26	.78	.12	.15	.24	.39	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.44
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11.00	.1720	1.89	.00	.0000	.00	1.89
PULL + SEED LEVEE	ACRE	5	3	1.00	.05	.21	.11	.32	.05	.18	.38	.56	.00	.05	.00	.00	.11	.00	.11	.00	.0000	.00	.00	.0000	.00	1.00
					.05	.21	.11	.32	.05	.18	.38	.56	.00	.05	.00	.00	.12	.00	.12			1.89			.00	2.89
BUTT LEVEE	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.09	.23	.32	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.37
PROPANIL	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	2.2700	6.81	.00	.0000	.00	6.81
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP PROPANIL-AIR	ACRE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	2.5000	2.50	2.50
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			6.81			2.50	9.36
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.28	.00	.0000	.00	.00	.0000	.00	.28
SET SPILLS	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.00	.00	.28	.00	.0000	.00	.00	.0000	.00	.28
					.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.12	.28	.00	.28	.55			.00			.00	.55
PROPANIL	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	2.2700	6.81	.00	.0000	.00	6.81
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP PROPANIL-AIR	ACRE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	2.5000	2.50	2.50
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			6.81			2.50	9.36
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.58	.58	.00	.0000	.00	.00	.0000	.00	.58
FLOOD-ADJ SPILLS	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.58	.00	.00	.58	.00	.0000	.00	.00	.0000	.00	.58
					.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.25	.58	.00	.58	1.15			.00			.00	1.15
MOLINATE	LB	5	0	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.00	6.8000	13.60	.00	.0000	.00	13.60
APP MOLINATE-AIR	ACRE	5	0	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.50	2.5000	1.25	1.25
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			13.60			1.25	14.85

FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.33	7.7000	10.26	.00	.0000	.00	10.26
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP UREA-AIR	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.33	2.0000	2.67	2.67
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			10.26			2.67	12.98
2.4.5-T	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	4.3500	4.35	.00	.0000	.00	4.35
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP 2.4.5-Y AIR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	3.0000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			4.35			3.00	7.40
FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.33	7.7000	10.26	.00	.0000	.00	10.26
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP UREA-AIR	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.33	2.0000	2.67	2.67
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			10.26			2.67	12.98
TEND WATER(RICE MAN)	HOUR	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.66	.00	.00	6.12	6.12	.00	.0000	.00	.00	.0000	.00	6.12
WATER COST	ACRE	10	0	1.00	.00	.00	.00	.00	.00	24.94	15.80	40.74	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	40.74
DRAIN(RICE MAN)	HOUR	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.58	.58	.00	.0000	.00	.00	.0000	.00	.58
COMBINE 16 FT	ACRE	9	3	1.00	.00	.00	.00	.00	.75	15.22	21.36	36.58	.00	.00	.75	.00	.00	1.73	1.73	.00	.0000	.00	.00	.0000	.00	38.30
TOW TRACTOR	ACRE	9	3	1.00	.00	.00	.00	.00	.75	4.95	2.76	7.71	.00	.00	.75	.00	.00	1.73	1.73	.00	.0000	.00	.00	.0000	.00	9.43
GRAIN CART	ACRE	9	3	1.00	.44	1.88	.96	2.84	.44	.40	.76	1.16	.00	.44	.00	.00	1.01	.00	.01	.00	.0000	.00	.00	.0000	.00	5.01
HAUL	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	90.00	.1100	9.90	9.90
STORE - DRY	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	90.00	.2700	24.30	24.30
TURN - LOAD OUT	BU	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	90.00	.0200	1.80	1.80
BURN	HOUR	10	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.02	.00	.00	.02	.00	.0000	.00	.00	.0000	.00	.02
					1.77	7.44	3.81	11.25	3.27	47.52	44.52	92.04	.79	1.77	4.90	1.82	4.07	11.27	17.16			77.21			53.45	251.11

TABLE 2. ESTIMATED COST PER ACRE BY OPERATION, RICE BEHIND RICE, CLAY SOIL, USUAL INPUT PRACTICES, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
DISK LEVEE	ACRE	4	3	1.00	.04	.17	.09	.26	.04	.05	.08	.13	.00	.04	.00	.00	.09	.00	.09	.00	.0000	.00	.00	.0000	.00	.48
CHISEL PLOW 16 FT	ACRE	4	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
PIPE 30 FT	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.03	.10	.13	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.01
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	110.00	.1720	18.92	.00	.0000	.00	18.92
PLANT 2 12 FT GR DR	ACRE	5	3	1.00	.13	.56	.28	.84	.13	.88	1.84	2.72	.12	.13	.00	.28	.30	.00	.58	.00	.0000	.00	.00	.0000	.00	4.13
					.13	.56	.28	.84	.13	.88	1.84	2.72	.12	.13	.00	.28	.30	.00	.58			18.92			.00	23.05
LEVEL	ONE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	.1700	.17	.17
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.55	.00	.00	.55	.00	.0000	.00	.00	.0000	.00	.55
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.28	.00	.0000	.00	.00	.0000	.00	.28
SURVEY AND MARK	ACRE	5	1	1.00	.12	.40	.19	.59	.12	.00	.00	.00	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	.87
					.12	.40	.19	.59	.12	.00	.00	.00	.24	.12	.12	.55	.28	.28	1.10			.00			.17	1.86
PULL LEVEE X3	ACRE	5	3	3.00	.12	.51	.26	.78	.12	.15	.24	.39	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.44
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11.00	.1720	1.89	.00	.0000	.00	1.89
PULL + SEED LEVEE	ACRE	5	3	1.00	.05	.21	.11	.32	.05	.18	.38	.56	.00	.05	.00	.00	.11	.00	.11	.00	.0000	.00	.00	.0000	.00	1.00
					.05	.21	.11	.32	.05	.18	.38	.56	.00	.05	.00	.00	.12	.00	.12			1.89			.00	2.89
BUTT LEVEE	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.09	.23	.32	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.37
PROPANIL	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	2.2700	9.08	.00	.0000	.00	9.08
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP PROPANIL-AIR	ACRE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	2.5000	2.50	2.50
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			9.08			2.50	11.63
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.28	.00	.0000	.00	.00	.0000	.00	.28
SET SPILLS	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.28	.00	.00	.28	.00	.0000	.00	.00	.0000	.00	.28
					.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.12	.28	.00	.28	.55			.00			.00	.55
LABOR(RICE MAN)	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.58	.58	.00	.0000	.00	.00	.0000	.00	.58
FLOOD-ADJ SPILLS	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.58	.00	.00	.58	.00	.0000	.00	.00	.0000	.00	.58
					.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.25	.58	.00	.58	1.15			.00			.00	1.15
FERT UREA-SOLID	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.33	7.7000	10.26	.00	.0000	.00	10.26
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP UREA-AIR	CWT	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.33	2.0000	2.67	2.67
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			10.26			2.67	12.98
2,4,5-T	LB	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	4.3500	4.35	.00	.0000	.00	4.35
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APP 2,4,5-T AIR	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	1.00	3.0000	3.00	3.00
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			4.35			3.00	7.40

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   FERT UREA-SOLID    CWT  6  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00  .00   .00   .00   .00   .00  1.33 7.7000 10.26   .00  .0000   .00  10.26
   LABOR             HOUR  6  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .02  .00  .00   .05   .00   .00   .05   .00  .0000   .00   .00  .0000   .00    .05
   APP UREA-AIR       CWT  6  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00  .00   .00   .00   .00   .00   .00  .0000   .00  1.33 2.0000  2.67   2.67
                                      .00   .00   .00   .00  .00   .00   .00   .00     .02  .00  .00   .05   .00   .00   .05               10.26                2.67  12.98
 TEND WATER(RICE MAN) HOUR  7  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00 2.66   .00   .00  6.12  6.12   .00  .0000   .00   .00  .0000   .00   6.12
 WATER COST          ACRE 10  0 1.00  .00   .00   .00   .00  .00 24.94 15.80 40.74     .00  .00  .00   .00   .00   .00   .00   .00  .0000   .00   .00  .0000   .00  40.74
 DRAIN(RICE MAN)     HOUR  8  0 1.00  .00   .00    00   .00  .00   .00   .00   .00     .00  .00  .25   .00   .00   .58   .58   .00  .0000   .00   .00  .0000   .00    .58
 COMBINE 16 FT       ACRE  9  3 1.00  .00   .00   .00   .00  .75 15.22 21.36 36.58     .00  .00  .75   .00   .00  1.73  1.73   .00  .0000   .00   .00  .0000   .00  38.30
 TOW TRACTOR         ACRE  9  3 1.00  .00   .00   .00   .00  .75  4.95  2.76  7.71     .00  .00  .75   .00   .00  1.73  1.73   .00  .0000   .00   .00  .0000   .00   9.43

 GRAIN CART          ACRE  9  3 1.00  .44  1.88   .96  2.84  .44   .40   .76  1.16     .00  .44  .00   .00  1.01   .00  1.01   .00  .0000   .00   .00  .0000   .00   5.01
 HAUL                  BU  9  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00  .00   .00   .00   .00   .00   .00  .0000   .00 100.00 .1100 11.00  11.00
 STORE - DRY           BU  9  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00  .00   .00   .00   .00   .00   .00  .0000   .00 100.00 .2700 27.00  27.00
 TURN - LOAD OUT       BU 10  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .00  .00  .00   .00   .00   .00   .00   .00  .0000   .00 100.00 .0200  2.00   2.00
 BURN                HOUR 10  0 1.00  .00   .00   .00   .00  .00   .00   .00   .00     .01  .00  .00   .02   .00   .00   .02   .00  .0000   .00   .00  .0000   .00    .02
                                     1.76  7.40  3.78 11.18 3.20 48.06 45.74 93.80     .82 1.76 4.90  1.89  4.05 11.27 17.20               54.77               51.00 227.96
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TABLE 3. ESTIMATED COST PER ACRE BY OPERATION, WHEAT FOR GRAIN, CLAY SOIL, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	9	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	9	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	9	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	10	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	10	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	99.00	.1180	11.68	.00	.0000	.00	11.68
GRAIN DRILL 12 FT	ACRE	10	3	1.10	.26	1.13	.58	1.71	.26	.48	1.01	1.50	.26	.26	.00	.61	.61	.00	1.21	.00	.0000	.00	.00	.0000	.00	4.42
					.26	1.13	.58	1.71	.26	.48	1.01	1.50	.26	.26	.00	.61	.61	.00	1.21			11.68			.00	16.10
TRAILER	ACRE	10	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
FERT AMM NITRATE	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.54	8.0200	20.37	.00	.0000	.00	20.37
LABOR	HOUR	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY FERT AIR	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.54	2.0000	5.08	5.08
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			20.37			5.08	25.50
COMBINE 20 FT	ACRE	6	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	BU	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	40.00	.0700	2.80	2.80
BURN	ACRE	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.02	.00	.00	.02	.00	.0000	.00	.00	.0000	.00	.02
					1.03	4.40	2.25	6.65	1.26	5.83	9.11	14.95	.43	1.03	.23	1.00	2.38	.53	3.91			32.05			7.88	65.43

TABLE 4. ESTIMATED COST PER ACRE BY OPERATION, FALLOW, ALL SOILS, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	7	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	8	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	8	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	9	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	9	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	9	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
					1.28	5.47	2.80	8.27	1.28	2.34	4.38	6.72	.00	1.28	.00	.00	2.94	.00	2.94			.00			.00	17.93

TABLE 5. ESTIMATED COST PER ACRE BY OPERATION, CORN FOR GRAIN, SANDY SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	10	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
SUBSOILER 2 ROW	ACRE	10	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FERT 0-24-24	CWT	11	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.50	6.4300	16.07	.00	.0000	.00	16.07
SPIN SPREADER	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			16.08			.00	17.14
DISK BED	ACRE	11	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.46	8.2500	12.04	.00	.0000	.00	12.04
DISK BED + FERT	ACRE	3	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			12.04			.00	14.09
ROW CONDITION	ACRE	4	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
SEED	LB	4	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16.50	.3980	6.57	.00	.0000	.00	6.57
ATRAZINE	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	3.6000	3.60	.00	.0000	.00	3.60
PLANT + PRE	ACRE	4	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			10.17			.00	13.71
TRAILER	ACRE	4	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	4	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
COMBINE 4 ROW	ACRE	9	3	1.00	.45	1.92	.99	2.91	.45	8.05	11.09	19.14	.00	.45	.00	.00	1.03	.00	1.03	.00	.0000	.00	.00	.0000	.00	23.08
HAUL	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	85.00	.0600	5.10	5.10
DRY AND STORE	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	85.00	.2500	21.25	21.25
					2.89	12.31	6.31	18.63	2.89	17.01	26.23	43.24	2.44	2.89	.00	5.61	6.64	.00	12.25			38.29			26.35	138.75

TABLE 6. ESTIMATED COST PER ACRE BY OPERATION, CORN FOR GRAIN, SANDY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	10	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
SUBSOILER 2 ROW	ACRE	10	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FERT 0-24-24	CWT	11	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.50	6.4300	16.07	.00	.0000	.00	16.07
SPIN SPREADER	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			16.08			.00	17.14
DISK BED	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.46	8.2500	12.04	.00	.0000	.00	12.04
DISK BED + FERT	ACRE	3	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			12.04			.00	14.09
ROW CONDITION	ACRE	4	3	1.00	.17	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	4	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16.50	.3980	6.57	.00	.0000	.00	6.57
ATRAZINE	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	3.6000	3.60	.00	.0000	.00	3.60
PLANT + PRE	ACRE	4	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			10.17			.00	12.79
TRAILER	ACRE	4	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
COMBINE 4 ROW	ACRE	9	3	1.00	.45	1.92	.99	2.91	.45	8.05	11.09	19.14	.00	.45	.00	.00	1.03	.00	1.03	.00	.0000	.00	.00	.0000	.00	23.08
HAUL	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	85.00	.0600	5.10	5.10
DRY AND STORE	BU	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	85.00	.2500	21.25	21.25
					2.64	11.26	5.77	17.04	2.64	17.02	26.21	43.24	2.37	2.64	.00	5.46	6.08	.00	11.53			38.29			26.35	136.44

TABLE 7. ESTIMATED COST PER ACRE BY OPERATION, CORN FOR SILAGE, SANDY SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	10	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
SUBSOILER 2 ROW	ACRE	10	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FERT 0-24-24	CWT	11	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.50	6.4300	16.07	.00	.0000	.00	16.07
SPIN SPREADER	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.01
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			16.08			.00	17.14
DISK BED	ACRE	11	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT ANHY AMMONIA	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.46	8.2500	12.04	.00	.0000	.00	12.04
DISK BED + FERT	ACRE	3	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.60	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			12.04			.00	14.09
ROW CONDITION	ACRE	4	3	1.20	.18	.77	.39	1.16	.18	.42	.80	1.22	.00	.18	.00	.00	.41	.00	.41	.00	.0000	.00	.00	.0000	.00	2.80
SEED	LB	4	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16.50	.3980	6.57	.00	.0000	.00	6.57
ATRAZINE	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	3.6000	3.60	.00	.0000	.00	3.60
PLANT + PRE	ACRE	4	3	1.10	.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91	.00	.0000	.00	.00	.0000	.00	3.54
					.20	.85	.43	1.28	.20	.42	.93	1.35	.20	.20	.00	.46	.46	.00	.91			10.17			.00	13.71
TRAILER	ACRE	4	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	4	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
LABOR	HOUR	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
SILAGE HARVESTER 2R	ACRE	8	3	1.00	.94	4.01	2.06	6.07	.94	5.13	4.65	9.79	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	18.01
FOR WAGON (2 - 1 TR)	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	2.76	7.76	10.52	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	17.30
FORAGE WAGON	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	1.38	3.88	5.26	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	12.04
					1.88	6.20	3.03	9.23	1.88	4.14	11.64	15.78	.00	1.88	.00	.00	4.32	.00	4.32			.00			.00	29.33
UREA	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.1100	12.10	12.10
LIMESTONE	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0100	1.10	1.10
FORAGE BLOWER	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	.56	1.91	2.47	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	9.25
					.94	3.10	1.51	4.62	.94	.56	1.91	2.47	.00	.94	.00	.00	2.16	.00	2.16			.00			13.20	22.45
					6.20	23.71	11.93	35.64	6.20	18.79	33.34	52.13	2.44	6.20	.00	5.61	14.26	.00	19.86			38.29			13.20	159.11

TABLE 8. ESTIMATED COST PER ACRE BY OPERATION, CORN FOR SILAGE, SANDY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	NO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 28 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.34	.62	.96	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.84
SUBSOILER 2 ROW	ACRE	10	3	1.00	.62	2.65	1.36	4.01	.62	.25	.42	.67	.00	.62	.00	.00	1.43	.00	1.43	.00	.0000	.00	.00	.0000	.00	6.10
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
CHISEL PLOW 16 FT	ACRE	10	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FERT 0-24-24	CWT	11	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.50	6.4300	16.07	.00	.0000	.00	16.07
SPIN SPREADER	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			16.08			.00	17.14
DISK BED	ACRE	11	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT ANHY AMMONIA	CWT	7	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.46	8.2500	12.04	.00	.0000	.00	12.04
DISK BED + FERT	ACRE	7	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			12.04			.00	14.09
ROW CONDITION	ACRE	4	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	4	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16.50	.3980	6.57	.00	.0000	.00	6.57
ATRAZINE	LB	4	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	3.6000	3.60	.00	.0000	.00	3.60
PLANT + PRE	ACRE	4	3	1.10	.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61	.00	.0000	.00	.00	.0000	.00	2.63
					.13	.56	.29	.85	.13	.36	.80	1.17	.13	.13	.00	.30	.30	.00	.61			10.17			.00	12.79
TRAILER	ACRE	4	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	4	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	4	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
SILAGE HARVESTER 2R	ACRE	8	3	1.00	.94	4.01	2.06	6.07	.94	5.13	4.65	9.78	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	18.01
FOR WAGON (2 - 1 TR)	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	2.76	7.76	10.52	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	17.30
FORAGE WAGON	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	1.38	3.88	5.26	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	12.04
					1.88	6.20	3.03	9.23	1.88	4.14	11.64	15.78	.00	1.88	.00	.00	4.32	.00	4.32			.00			.00	29.33
UREA	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.1100	12.10	12.10
LIMESTONE	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	110.00	.0100	1.10	1.10
FORAGE BLOWER	ACRE	8	1	1.00	.94	3.10	1.51	4.62	.94	.56	1.91	2.47	.00	.94	.00	.00	2.16	.00	2.16	.00	.0000	.00	.00	.0000	.00	9.25
					.94	3.10	1.51	4.62	.94	.56	1.91	2.47	.00	.94	.00	.00	2.16	.00	2.16			.00			13.20	22.45
					5.91	22.49	11.30	33.79	5.91	18.80	33.32	52.13	2.37	5.91	.00	5.46	13.60	.00	19.05			38.29			13.20	156.46

TABLE 9. ESTIMATED COST PER ACRE BY OPERATION, GRAIN SORGHUM FOR GRAIN, CLAY SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
SPIN SPREADER	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			28.71			.00	29.78
REBED	ACRE	5	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83	.00	.0000	.00	.00	.0000	.00	3.22
					.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83			7.21			.00	10.43
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			4.35			.00	6.30
COMBINE 20 FT	ACRE	9	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	CWT	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	33.00	.0800	2.64	2.64
DRY AND STORE	CWT	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	33.00	.4500	14.85	14.85
					1.80	7.67	3.93	11.60	2.19	7.47	11.16	18.63	.32	1.80	.39	.74	4.14	.90	5.77			40.27			17.49	93.76

TABLE 10. ESTIMATED COST PER ACRE BY OPERATION, GRAIN SORGHUM FOR GRAIN, CLAY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
SPIN SPREADER	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.07
					.10	.43	.22	.65	.10	.07	.12	.19	.00	.10	.00	.00	.23	.00	.23			28.71			.00	29.78
REBED	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55	.00	.0000	.00	.00	.0000	.00	2.39
					.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55			7.21			.00	9.59
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.16	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			4.35			.00	6.30
COMBINE 20 FT	ACRE	9	3	1.00	.00	.00	.00	.00	.23	3.99	5.47	9.46	.00	.00	.23	.00	.00	.53	.53	.00	.0000	.00	.00	.0000	.00	9.99
HAUL	CWT	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	33.00	.0800	2.64	2.64
DRY AND STORE	CWT	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	33.00	.4500	14.85	14.85
					1.52	6.47	3.32	9.79	1.97	7.58	11.32	18.90	.26	1.52	.39	.60	3.50	.90	4.99			40.27			17.49	91.44

TABLE 11. ESTIMATED COST PER ACRE BY OPERATION, GRAIN SORGHUM FOR SILAGE, ALL SOILS, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

					TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			
OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	TOTAL
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
REBED + FERT	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			28.71			.00	30.75
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83	.00	.0000	.00	.00	.0000	.00	3.22
					.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83			7.21			.00	10.43
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			4.35			.00	6.30
SILAGE HARVESTER 2R	ACRE	8	3	1.00	.66	2.82	1.45	4.26	.66	3.60	3.27	6.87	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.65
FOR WAGON (2 - 1 TR)	ACRE	8	1	1.00	.66	2.18	1.06	3.24	.68	1.94	5.45	7.39	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.15
UREA	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	50.00	.1100	5.50	5.50
LIMESTONE	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	50.00	.0100	.50	.50
FORAGE BLOWER	ACRE	8	1	1.00	.66	2.18	1.06	3.24	.68	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	6.49
					.66	2.18	1.06	3.24	.68	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52			.00			6.00	12.49
					3.71	14.54	7.35	21.89	3.88	9.42	15.76	25.18	.32	3.71	.16	.74	8.53	.37	9.64			40.27			6.00	102.98

TABLE 12. ESTIMATED COST PER ACRE BY OPERATION, GRAIN SORGHUM FOR SILAGE, CLAY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
REBED + FERT	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			28.71			.00	30.38
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55	.00	.0000	.00	.00	.0000	.00	2.39
					.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55			7.21			.00	9.59
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS GROUND X2	ACRE	7	1	2.00	.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37	.00	.0000	.00	.00	.0000	.00	1.95
					.00	.00	.00	.00	.18	.90	.68	1.58	.00	.00	.16	.00	.00	.37	.37			4.35			.00	6.30
SILAGE HARVESTER 2R	ACRE	8	3	1.00	.66	2.82	1.45	4.26	.66	3.60	3.27	6.87	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.65
FOR WAGON (2 - 1 TR)	ACRE	8	1	1.00	.66	2.18	1.06	3.24	.68	1.94	5.45	7.39	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.15
UREA	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	50.00	.1100	5.50	5.50
LIMESTONE	LB	8	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	50.00	.0100	.50	.50
FORAGE BLOWER	ACRE	8	1	1.00	.66	2.18	1.06	3.24	.66	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	6.49
					.66	2.18	1.06	3.24	.66	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52			.00			6.00	12.49
					3.42	13.30	6.71	20.02	3.58	9.52	15.91	25.43	.26	3.42	.16	.60	7.87	.37	8.83			40.27			6.00	100.55

TABLE 13. ESTIMATED COST PER ACRE BY OPERATION, HIGH CUT WHEAT FOR SILAGE, CLAY SOIL, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
DISK HARROW 21 FT	ACRE	9	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	9	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
DISK HARROW 21 FT	ACRE	10	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
FIELD CULT 21 FT	ACRE	10	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
ROW CONDITION	ACRE	10	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	10	0	1.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	99.00	.1180	11.68	.00	.0000	.00	11.68
GRAIN DRILL 12 FT	ACRE	10	3	1.10	.26	1.13	.58	1.71	.28	.48	1.01	1.50	.26	.26	.00	.61	.61	.00	1.21	.00	.0000	.00	.00	.0000	.00	4.42
					.26	1.13	.58	1.71	.28	.48	1.01	1.50	.26	.26	.00	.61	.61	.00	1.21			11.68			.00	16.10
TRAILER	ACRE	10	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
FERT AMM NITRATE	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.54	8.0200	20.37	.00	.0000	.00	20.37
LABOR	HOUR	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05	.00	.0000	.00	.00	.0000	.00	.05
APPLY FERT AIR	CWT	3	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.54	2.0000	5.08	5.08
					.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.05	.00	.00	.05			20.37			5.08	25.50
SILAGE HARVESTER 2R	ACRE	5	3	1.00	.66	2.82	1.45	4.26	.66	3.55	3.21	6.76	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.54
FOR WAGON (2 - 1 TR)	ACRE	5	1	1.00	.66	2.18	1.06	3.24	.66	1.94	5.45	7.39	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	12.15
UREA	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	55.00	.1100	6.05	6.05
LIMESTONE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	55.00	.0100	.55	.55
FORAGE BLOWER	ACRE	5	1	1.00	.66	2.18	1.06	3.24	.66	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52	.00	.0000	.00	.00	.0000	.00	6.49
					.66	2.18	1.06	3.24	.66	.39	1.34	1.73	.00	.66	.00	.00	1.52	.00	1.52			.00			6.60	13.09
BURN	ACRE	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.02	.00	.00	.02	.00	.0000	.00	.00	.0000	.00	.02
					3.11	12.00	6.04	18.04	3.11	7.86	13.95	21.82	.43	3.11	.00	1.00	7.16	.00	8.16			32.05			11.68	91.75

TABLE 14. ESTIMATED COST PER ACRE BY OPERATION, INTERMEDIATE SORGHUM SILAGE, CLAY SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR HOURS	TRACTOR DIRECT COST	TRACTOR FIXED COST	TRACTOR SUM	EQUIPMENT HOURS	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	EQUIPMENT SUM	LABOR HOURS COMM	LABOR HOURS OPER	LABOR HOURS SPEC	LABOR COST COMM	LABOR COST OPER	LABOR COST SPEC	LABOR COST SUM	MATERIAL QUAN	MATERIAL PRICE	MATERIAL COST	MISCELLANEOUS QUAN	MISCELLANEOUS PRICE	MISCELLANEOUS COST	TOTAL
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.13	.56	.28	.84	.13	.16	.27	.43	.00	.13	.00	.00	.30	.00	.30	.00	.0000	.00	.00	.0000	.00	1.57
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
REBED + FERT	ACRE	5	3	1.00	.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.04
					.16	.68	.35	1.03	.16	.24	.40	.64	.00	.16	.00	.00	.37	.00	.37			28.71			.00	30.75
ROW CONDITION	ACRE	5	3	1.00	.15	.64	.33	.97	.15	.35	.67	1.02	.00	.15	.00	.00	.35	.00	.35	.00	.0000	.00	.00	.0000	.00	2.33
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83	.00	.0000	.00	.00	.0000	.00	3.22
					.18	.77	.39	1.16	.18	.38	.85	1.23	.18	.18	.00	.41	.41	.00	.83			7.21			.00	10.43
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.21	.90	.46	1.36	.21	.19	.37	.56	.00	.21	.00	.00	.48	.00	.48	.00	.0000	.00	.00	.0000	.00	2.40
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
CULTIVATE LATE	ACRE	6	3	1.00	.14	.60	.31	.90	.14	.13	.25	.38	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	1.61
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS AIR X2	ACRE	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			4.35			1.60	5.95
SILAGE HARVESTER 2R	ACRE	9	3	1.00	1.41	6.02	3.09	9.11	1.41	7.70	6.98	14.68	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	27.03
FOR WAGON (2 - 1 TR)	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	4.14	11.63	15.77	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	25.94
FORAGE WAGON	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	2.07	5.82	7.89	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	18.06
					2.82	9.31	4.54	13.85	2.82	6.21	17.45	23.66	.00	2.82	.00	.00	6.49	.00	6.49			.00			.00	43.99
UREA	LB	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	190.00	.1100	20.90	20.90
FORAGE BLOWER	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	.84	2.86	3.70	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	13.87
					1.41	4.65	2.27	6.92	1.41	.84	2.86	3.70	.00	1.41	.00	.00	3.24	.00	3.24			.00			20.90	34.77
					7.37	27.35	13.68	41.02	7.37	23.60	42.21	65.81	2.42	7.37	.00	5.57	16.95	.00	22.52			40.27			22.50	192.12

TABLE 15. ESTIMATED COST PER ACRE BY OPERATION, INTERMEDIATE SORGHUM SILAGE, CLAY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

OPERATION OR MATERIAL DESCRIPTION	UNIT	MO	TR	TIMES OVER	TRACTOR				EQUIPMENT				LABOR HOURS			LABOR COST				MATERIAL			MISCELLANEOUS			TOTAL
					HOURS	DIRECT COST	FIXED COST	SUM	HOURS	DIRECT COST	FIXED COST	SUM	COMM	OPER	SPEC	COMM	OPER	SPEC	SUM	QUAN	PRICE	COST	QUAN	PRICE	COST	
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
DISK HARROW 21 FT	ACRE	4	3	1.00	.14	.60	.31	.90	.14	.34	.62	.96	.00	.14	.00	.00	.32	.00	.32	.00	.0000	.00	.00	.0000	.00	2.19
CHISEL PLOW 16 FT	ACRE	5	3	1.00	.22	.94	.48	1.42	.22	.15	.33	.48	.00	.22	.00	.00	.51	.00	.51	.00	.0000	.00	.00	.0000	.00	2.41
FIELD CULT 21 FT	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.14	.31	.45	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.33
DISK BED	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.16	.27	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
FERT AMM NITRATE	CWT	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.58	8.0200	28.71	.00	.0000	.00	28.71
REBED + FERT	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	1.67
					.12	.51	.26	.78	.12	.23	.39	.62	.00	.12	.00	.00	.28	.00	.28			28.71			.00	30.38
ROW CONDITION	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.42	.81	1.23	.00	.12	.00	.00	.28	.00	.28	.00	.0000	.00	.00	.0000	.00	2.28
SEED	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.00	.2900	2.32	.00	.0000	.00	2.32
PROPAZINE	LB	5	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25	3.9100	4.89	.00	.0000	.00	4.89
PLANT + PRE	ACRE	5	3	1.00	.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55	.00	.0000	.00	.00	.0000	.00	2.39
					.12	.51	.26	.78	.12	.33	.73	1.06	.12	.12	.00	.28	.28	.00	.55			7.21			.00	9.59
TRAILER	ACRE	5	1	1.00	.02	.07	.03	.10	.02	.04	.08	.12	.14	.02	.00	.32	.05	.00	.37	.00	.0000	.00	.00	.0000	.00	.59
CULTIVATE EARLY	ACRE	6	3	1.00	.16	.68	.35	1.03	.16	.24	.45	.69	.00	.16	.00	.00	.37	.00	.37	.00	.0000	.00	.00	.0000	.00	2.09
CULTIVATE LATE	ACRE	5	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
CULTIVATE LATE	ACRE	6	3	1.00	.10	.43	.22	.65	.10	.15	.28	.43	.00	.10	.00	.00	.23	.00	.23	.00	.0000	.00	.00	.0000	.00	1.31
LABOR	HOUR	6	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	.00	4.83	.00	.00	4.83	.00	.0000	.00	.00	.0000	.00	4.83
IRRIGATE-GATED PIPE	ACRE	6	0	1.00	.00	.00	.00	.00	.00	6.26	9.90	16.16	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	.00	.0000	.00	16.16
					.00	.00	.00	.00	.00	6.26	9.90	16.16	2.10	.00	.00	4.83	.00	.00	4.83			.00			.00	20.99
SEVIN	LB	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.00	1.4500	4.35	.00	.0000	.00	4.35
APPLY INS AIR X2	ACRE	7	0	2.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	2.00	.8000	1.60	1.60
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			4.35			1.60	5.95
SILAGE HARVESTER 2R	ACRE	9	3	1.00	1.41	6.02	3.09	9.11	1.41	7.70	6.98	14.68	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	27.03
FOR WAGON (2 - 1 TR)	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	4.14	11.63	15.77	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	25.94
FORAGE WAGON	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	2.07	5.82	7.89	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	18.06
					2.82	9.31	4.54	13.85	2.82	6.21	17.45	23.66	.00	2.82	.00	.00	6.49	.00	6.49			.00			.00	43.99
UREA	LB	9	0	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0000	.00	190.00	.1100	20.90	20.90
FORAGE BLOWER	ACRE	9	1	1.00	1.41	4.65	2.27	6.92	1.41	.84	2.86	3.70	.00	1.41	.00	.00	3.24	.00	3.24	.00	.0000	.00	.00	.0000	.00	13.87
					1.41	4.65	2.27	6.92	1.41	.84	2.86	3.70	.00	1.41	.00	.00	3.24	.00	3.24			.00			20.90	34.77
					7.08	26.11	13.04	39.15	7.08	23.70	42.36	66.06	2.36	7.08	.00	5.43	16.28	.00	21.71			40.27			22.50	189.69

TABLE 16. ESTIMATED COST AND NET RETURNS PER ACRE, RICE BEHIND RICE, CLAY SOIL, HIG
INPUT PRACTICES, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
RICE	BU	4.25000	90.00	382.50
TOTAL INCOME				382.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.79	1.82
OPERATOR LABOR	HOUR	2.30	1.77	4.07
SPECIAL LABOR	HOUR	2.30	4.90	11.27
SEED	LB	.17	146.00	25.11
PLANT-AIR	CWT	2.00	1.35	2.70
LEVEL	ONE	.17	1.00	.17
PROPANIL	LB	2.27	6.00	13.62
APP PROPANIL-AIR	ACRE	2.50	2.00	5.00
MOLINATE	LB	6.80	2.00	13.60
APP MOLINATE-AIR	ACRE	2.50	.50	1.25
FERT UREA-SOLID	CWT	7.70	2.67	20.53
APP UREA-AIR	CWT	2.00	2.67	5.33
2,4,5-T	LB	4.35	1.00	4.35
APP 2,4,5-T AIR	ACRE	3.00	1.00	3.00
SPECIAL EQUIPMENT	ACRE	45.11	1.00	45.11
EQUIPMENT	ACRE	2.41	1.00	2.41
TRACTOR	ACRE	7.44	1.00	7.44
INT ON OP CAP	ACRE	8.97	1.00	8.97
HAUL	BU	.11	90.00	9.90
STORE - DRY	BU	.27	90.00	24.30
TURN - LOAD OUT	BU	.02	90.00	1.80
TOTAL DIRECT EXPENSE				211.75
RETURNS ABOVE DIRECT EXPENSES				170.75
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	39.92	1.00	39.92
EQUIPMENT	ACRE	4.60	1.00	4.60
TRACTOR	ACRE	3.81	1.00	3.81
TOTAL FIXED EXPENSE				48.33
TOTAL SPECIFIED EXPENSES				260.08
NET RETURN				122.42

ABLE 17. ESTIMATED COST AND NET RETURNS PER ACRE, RICE BEHIND RICE, CLAY SOIL, USUAL NPUT PRACTICES, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
RICE	BU	4.25000	100.00	425.00
TOTAL INCOME				425.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.82	1.89
OPERATOR LABOR	HOUR	2.30	1.76	4.05
SPECIAL LABOR	HOUR	2.30	4.90	11.27
SEED	LB	.17	121.00	20.81
LEVEL	ONE	.17	1.00	.17
PROPANIL	LB	2.27	4.00	9.08
APP PROPANIL-AIR	ACRE	2.50	1.00	2.50
FERT UREA-SOLID	CWT	7.70	2.67	20.53
APP UREA-AIR	CWT	2.00	2.67	5.33
2,4,5-T	LB	4.35	1.00	4.35
APP 2,4,5-T AIR	ACRE	3.00	1.00	3.00
SPECIAL EQUIPMENT	ACRE	45.11	1.00	45.11
EQUIPMENT	ACRE	2.95	1.00	2.95
TRACTOR	ACRE	7.40	1.00	7.40
INT ON OP CAP	ACRE	7.88	1.00	7.88
HAUL	BU	.11	100.00	11.00
STORE - DRY	BU	.27	100.00	27.00
TURN - LOAD OUT	BU	.02	100.00	2.00
TOTAL DIRECT EXPENSE				186.31
RETURNS ABOVE DIRECT EXPENSES				238.69
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	39.92	1.00	39.92
EQUIPMENT	ACRE	5.82	1.00	5.82
TRACTOR	ACRE	3.78	1.00	3.78
TOTAL FIXED EXPENSE				49.52
TOTAL SPECIFIED EXPENSES				235.84
NET RETURN				189.16

TABLE 18. ESTIMATED COST AND NET RETURNS PER ACRE, WHEAT FOR GRAIN, CLAY SOIL, 110-1
DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.00000	40.00	120.00
TOTAL INCOME				120.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.43	1.00
OPERATOR LABOR	HOUR	2.30	1.03	2.38
SPECIAL LABOR	HOUR	2.30	.23	.53
SEED	LB	.12	99.00	11.68
FERT AMM NITRATE	CWT	8.02	2.54	20.37
APPLY FERT AIR	CWT	2.00	2.54	5.08
SPECIAL EQUIPMENT	ACRE	3.99	1.00	3.99
EQUIPMENT	ACRE	1.84	1.00	1.84
TRACTOR	ACRE	4.40	1.00	4.40
INT ON OP CAP	ACRE	2.22	1.00	2.22
HAUL	BU	.07	40.00	2.80
TOTAL DIRECT EXPENSE				56.29
RETURNS ABOVE DIRECT EXPENSES				63.71
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.47	1.00	5.47
EQUIPMENT	ACRE	3.64	1.00	3.64
TRACTOR	ACRE	2.25	1.00	2.25
TOTAL FIXED EXPENSE				11.36
TOTAL SPECIFIED EXPENSES				67.65
NET RETURN				52.35

ABLE 19. ESTIMATED COST AND NET RETURNS PER ACRE, FALLOW, ALL SOILS, 110-120 DBHP RACTOR, MISSISSIPPI DELTA, 1975.

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ITEM                              UNIT         PRICE     QUANTITY       AMOUNT

                                              DOLLARS                  DOLLARS


INCOME

      TOTAL INCOME                                                         .00

DIRECT EXPENSES
    OPERATOR LABOR                HOUR          2.30         1.28         2.94
    EQUIPMENT                     ACRE          2.34         1.00         2.34
    TRACTOR                       ACRE          5.47         1.00         5.47
    INT ON OP CAP                 ACRE          1.45         1.00         1.45

      TOTAL DIRECT EXPENSE                                               12.20

      RETURNS ABOVE DIRECT EXPENSES                                     -12.20

FIXED EXPENSES
    EQUIPMENT                     ACRE          4.38         1.00         4.38
    TRACTOR                       ACRE          2.80         1.00         2.80

      TOTAL FIXED EXPENSE                                                 7.18

      TOTAL SPECIFIED EXPENSES                                           19.38

      NET RETURN                                                        -19.38

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TABLE 20. ESTIMATED COST AND NET RETURNS PER ACRE, CORN FOR GRAIN, SANDY SOIL, 6 RO EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
CORN	BU	3.00000	85.00	255.00
TOTAL INCOME				255.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.44	5.61
OPERATOR LABOR	HOUR	2.30	2.89	6.64
FERT 0-24-24	CWT	6.43	2.50	16.07
FERT ANHY AMMONIA	CWT	8.25	1.46	12.04
SEED	LB	.40	16.50	6.57
ATRAZINE	LB	3.60	1.00	3.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	10.75	1.00	10.75
TRACTOR	ACRE	12.31	1.00	12.31
INT ON OP CAP	ACRE	4.41	1.00	4.41
HAUL	BU	.06	85.00	5.10
DRY AND STORE	BU	.25	85.00	21.25
TOTAL DIRECT EXPENSE				110.62
RETURNS ABOVE DIRECT EXPENSES				144.38
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	16.33	1.00	16.33
TRACTOR	ACRE	6.31	1.00	6.31
TOTAL FIXED EXPENSE				32.54
TOTAL SPECIFIED EXPENSES				143.16
NET RETURN				111.84

ABLE 21. EQUIPMENT COST AND NET RETURNS PER ACRE, CORN FOR GRAIN, SANDY SOIL, 8 ROW QUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
CORN	BU	3.00000	85.00	255.00
TOTAL INCOME				255.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.37	5.46
OPERATOR LABOR	HOUR	2.30	2.64	6.08
FERT 0-24-24	CWT	6.43	2.50	16.07
FERT ANHY AMMONIA	CWT	8.25	1.46	12.04
SEED	LB	.40	16.50	6.57
ATRAZINE	LB	3.60	1.00	3.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	10.76	1.00	10.76
TRACTOR	ACRE	11.26	1.00	11.26
INT ON OP CAP	ACRE	4.32	1.00	4.32
HAUL	BU	.06	85.00	5.10
DRY AND STORE	BU	.25	85.00	21.25
TOTAL DIRECT EXPENSE				108.78
RETURNS ABOVE DIRECT EXPENSES				146.22
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	16.31	1.00	16.31
TRACTOR	ACRE	5.77	1.00	5.77
TOTAL FIXED EXPENSE				31.99
TOTAL SPECIFIED EXPENSES				140.77
NET RETURN				114.23

TABLE 22. ESTIMATED COST AND NET RETURNS PER ACRE, CORN FOR SILAGE, SANDY SOIL, 6 ROV EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.44	5.61
OPERATOR LABOR	HOUR	2.30	6.20	14.26
FERT 0-24-24	CWT	6.43	2.50	16.07
FERT ANHY AMMONIA	CWT	8.25	1.46	12.04
SEED	LB	.40	16.50	6.57
ATRAZINE	LB	3.60	1.00	3.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	12.53	1.00	12.53
TRACTOR	ACRE	23.71	1.00	23.71
INT ON OP CAP	ACRE	4.47	1.00	4.47
UREA	LB	.11	110.00	12.10
LIMESTONE	LB	.01	110.00	1.10
TOTAL DIRECT EXPENSE				118.32
RETURNS ABOVE DIRECT EXPENSES				-118.32
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	23.44	1.00	23.44
TRACTOR	ACRE	11.93	1.00	11.93
TOTAL FIXED EXPENSE				45.27
TOTAL SPECIFIED EXPENSES				163.58
NET RETURN				-163.58

ABLE 23. ESTIMATED COST AND NET RETURNS PER ACRE, CORN FOR SILAGE, SANDY SOIL, 8 ROW QUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.37	5.46
OPERATOR LABOR	HOUR	2.30	5.91	13.60
FERT 0-24-24	CWT	6.43	2.50	16.07
FERT ANHY AMMONIA	CWT	8.25	1.46	12.04
SEED	LB	.40	16.50	6.57
ATRAZINE	LB	3.60	1.00	3.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	12.54	1.00	12.54
TRACTOR	ACRE	22.49	1.00	22.49
INT ON OP CAP	ACRE	4.36	1.00	4.36
UREA	LB	.11	110.00	12.10
LIMESTONE	LB	.01	110.00	1.10
TOTAL DIRECT EXPENSE				116.19
RETURNS ABOVE DIRECT EXPENSES				-116.19
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	23.42	1.00	23.42
TRACTOR	ACRE	11.30	1.00	11.30
TOTAL FIXED EXPENSE				44.62
TOTAL SPECIFIED EXPENSES				160.81
NET RETURN				-160.81

TABLE 24. ESTIMATED COST AND NET RETURNS PER ACRE, GRAIN SORGHUM FOR GRAIN, CLA
SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
GRAIN SORGHUM	CWT	4.80000	33.00	158.40
TOTAL INCOME				158.40
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.32	.74
OPERATOR LABOR	HOUR	2.30	1.80	4.14
SPECIAL LABOR	HOUR	2.30	.39	.90
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
SPECIAL EQUIPMENT	ACRE	4.89	1.00	4.89
EQUIPMENT	ACRE	2.58	1.00	2.58
TRACTOR	ACRE	7.67	1.00	7.67
INT ON OP CAP	ACRE	2.15	1.00	2.15
HAUL	CWT	.08	33.00	2.64
DRY AND STORE	CWT	.45	33.00	14.85
TOTAL DIRECT EXPENSE				80.82
RETURNS ABOVE DIRECT EXPENSES				77.58
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	6.15	1.00	6.15
EQUIPMENT	ACRE	5.01	1.00	5.01
TRACTOR	ACRE	3.93	1.00	3.93
TOTAL FIXED EXPENSE				15.09
TOTAL SPECIFIED EXPENSES				95.91
NET RETURN				62.49

ABLE 25. ESTIMATED COST AND NET RETURNS PER ACRE, GRAIN SORGHUM FOR GRAIN, CLAY OIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
GRAIN SORGHUM	CWT	4.80000	33.00	158.40
TOTAL INCOME				158.40
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.60
OPERATOR LABOR	HOUR	2.30	1.52	3.50
SPECIAL LABOR	HOUR	2.30	.39	.90
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
SPECIAL EQUIPMENT	ACRE	4.89	1.00	4.89
EQUIPMENT	ACRE	2.69	1.00	2.69
TRACTOR	ACRE	6.47	1.00	6.47
INT ON OP CAP	ACRE	2.09	1.00	2.09
HAUL	CWT	.08	33.00	2.64
DRY AND STORE	CWT	.45	33.00	14.85
TOTAL DIRECT EXPENSE				78.89
RETURNS ABOVE DIRECT EXPENSES				79.51
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	6.15	1.00	6.15
EQUIPMENT	ACRE	5.17	1.00	5.17
TRACTOR	ACRE	3.32	1.00	3.32
TOTAL FIXED EXPENSE				14.64
TOTAL SPECIFIED EXPENSES				93.53
NET RETURN				64.87

TABLE 26. ESTIMATED COST AND NET RETURNS PER ACRE, GRAIN SORGHUM FOR SILAGE, AL
SOILS, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.32	.74
OPERATOR LABOR	HOUR	2.30	3.71	8.53
SPECIAL LABOR	HOUR	2.30	.16	.37
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
SPECIAL EQUIPMENT	ACRE	.90	1.00	.90
EQUIPMENT	ACRE	8.52	1.00	8.52
TRACTOR	ACRE	14.54	1.00	14.54
INT ON OP CAP	ACRE	1.77	1.00	1.77
UREA	LB	.11	50.00	5.50
LIMESTONE	LB	.01	50.00	.50
TOTAL DIRECT EXPENSE				81.64
RETURNS ABOVE DIRECT EXPENSES				-81.64
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	.68	1.00	.68
EQUIPMENT	ACRE	15.08	1.00	15.08
TRACTOR	ACRE	7.35	1.00	7.35
TOTAL FIXED EXPENSE				23.11
TOTAL SPECIFIED EXPENSES				104.75
NET RETURN				-104.75

ABLE 27. ESTIMATED COST AND NET RETURNS PER ACRE, GRAIN SORGHUM FOR SILAGE, CLAY
OIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE DOLLARS	QUANTITY	AMOUNT DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.60
OPERATOR LABOR	HOUR	2.30	3.42	7.87
SPECIAL LABOR	HOUR	2.30	.16	.37
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
SPECIAL EQUIPMENT	ACRE	.90	1.00	.90
EQUIPMENT	ACRE	8.62	1.00	8.62
TRACTOR	ACRE	13.30	1.00	13.30
INT ON OP CAP	ACRE	1.72	1.00	1.72
UREA	LB	.11	50.00	5.50
LIMESTONE	LB	.01	50.00	.50
TOTAL DIRECT EXPENSE				79.64
RETURNS ABOVE DIRECT EXPENSES				-79.64
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	.68	1.00	.68
EQUIPMENT	ACRE	15.23	1.00	15.23
TRACTOR	ACRE	6.71	1.00	6.71
TOTAL FIXED EXPENSE				22.62
TOTAL SPECIFIED EXPENSES				102.27
NET RETURN				-102.27

TABLE 28. ESTIMATED COST AND NET RETURNS PER ACRE, HIGH CUT WHEAT FOR SILAGE, CLA SOIL, 110-120 DBHP TRACTOR, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.43	1.00
OPERATOR LABOR	HOUR	2.30	3.11	7.16
SEED	LB	.12	99.00	11.68
FERT AMM NITRATE	CWT	8.02	2.54	20.37
APPLY FERT AIR	CWT	2.00	2.54	5.08
EQUIPMENT	ACRE	7.86	1.00	7.86
TRACTOR	ACRE	12.00	1.00	12.00
INT ON OP CAP	ACRE	2.06	1.00	2.06
UREA	LB	.11	55.00	6.05
LIMESTONE	LB	.01	55.00	.55
TOTAL DIRECT EXPENSE				73.81
RETURNS ABOVE DIRECT EXPENSES				-73.81
FIXED EXPENSES				
EQUIPMENT	ACRE	13.95	1.00	13.95
TRACTOR	ACRE	6.04	1.00	6.04
TOTAL FIXED EXPENSE				19.99
TOTAL SPECIFIED EXPENSES				93.80
NET RETURN				-93.80

ABLE 29. ESTIMATED COST AND NET RETURNS PER ACRE, INTERMEDIATE SORGHUM SILAGE, LAY SOIL, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.42	5.57
OPERATOR LABOR	HOUR	2.30	7.37	16.95
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
APPLY INS AIR X2	ACRE	.80	2.00	1.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	17.34	1.00	17.34
TRACTOR	ACRE	27.35	1.00	27.35
INT ON OP CAP	ACRE	2.81	1.00	2.81
UREA	LB	.11	190.00	20.90
TOTAL DIRECT EXPENSE				139.04
RETURNS ABOVE DIRECT EXPENSES				-139.04
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	32.31	1.00	32.31
TRACTOR	ACRE	13.68	1.00	13.68
TOTAL FIXED EXPENSE				55.89
TOTAL SPECIFIED EXPENSES				194.93
NET RETURN				-194.93

TABLE 30. ESTIMATED COST AND NET RETURNS PER ACRE, INTERMEDIATE SORGHUM SILA
CLAY SOIL, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1975.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
TOTAL INCOME				.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.36	5.43
OPERATOR LABOR	HOUR	2.30	7.08	16.28
FERT AMM NITRATE	CWT	8.02	3.58	28.71
SEED	LB	.29	8.00	2.32
PROPAZINE	LB	3.91	1.25	4.89
SEVIN	LB	1.45	3.00	4.35
APPLY INS AIR X2	ACRE	.80	2.00	1.60
SPECIAL EQUIPMENT	ACRE	6.26	1.00	6.26
EQUIPMENT	ACRE	17.44	1.00	17.44
TRACTOR	ACRE	26.11	1.00	26.11
INT ON OP CAP	ACRE	2.74	1.00	2.74
UREA	LB	.11	190.00	20.90
TOTAL DIRECT EXPENSE				137.03
RETURNS ABOVE DIRECT EXPENSES				-137.03
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	9.90	1.00	9.90
EQUIPMENT	ACRE	32.46	1.00	32.46
TRACTOR	ACRE	13.04	1.00	13.04
TOTAL FIXED EXPENSE				55.40
TOTAL SPECIFIED EXPENSES				192.43
NET RETURN				-192.43

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CROP BUDGETS AND PLANNING DATA FOR MAJOR FARM ENTERPRISES IN THE MISSISSIPPI-LOUISIANA DELTA, 1975

By

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MISSISSIPPI AGRICULTURAL AND
FORESTRY EXPERIMENT STATION
in cooperation with
Commodity Economics Division
Economic Research Service
U. S. Department of Agriculture
and
Department of Agricultural Economics and Agribusiness
Louisiana State University Agricultural Experiment Station
Center for Agricultural Sciences and Rural Development

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CROP BUDGETS AND PLANNING DATA FOR MAJOR FARM ENTERPRISES IN THE MISSISSIPPI AND LOUISIANA DELTA 1975

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PREFACE

Data presented in this report were developed to support research by the Mississippi Agricultural and Forestry Experiment Station, the Louisiana Agricultural Experiment Station, and the Commodity Economics Division, Economic Research Service, USDA.

Although this information has been developed for use in the Mississippi Delta areas of Mississippi and Louisiana, it can be easily adapted for use in other areas. Admittedly, the information presented in this report will not fit every conceivable situation in the Delta. By using the general framework presented herein and the procedures suggested or implied in this report, enterprise budgets may be developed readily for other situations.

This report supersedes Mimeograph Report No. 30, "Budgets for Major Farm Enterprises in the Mississippi River Delta of Arkansas, Louisiana, and Mississippi" (3), and Bulletin 794, "Crop Budgets and Planning Data for Major Farm Enterprises in the Yazoo-Mississippi Delta", (4). Detailed information concerning specific input and prices used in this report may be found in (7), (8), and (9).

ACKNOWLEDGEMENTS

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CROP BUDGETS AND PLANNING DATA FOR MAJOR FARM ENTERPRISES IN THE MISSISSIPPI AND LOUISIANA DELTA 1975

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CROP BUDGETS AND PLANNING DATA FOR MAJOR FARM ENTERPRISES IN THE MISSISSIPPI-LOUISIANA DELTA

This publication is intended to provide information on production practices and production costs for various crops grown in the Mississippi Delta areas of Mississippi and Louisiana. Current production practices and costs associated with various agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and others working in agriculture.

DATA AND PROCEDURE

The information presented in this report was developed from a study of farm practices conducted from 1966 through 1972 (4). To update these data, spot checks on practices and performance rates of new equipment were obtained from 82 selected farmers in the Mississippi Delta area during August 1974.

To determine the most profitable combination of enterprises for individual farms or the most profitable adjustments for an area, three items of information are required. They are: (1) enterprise inputs and costs and returns for the various enterprise possibilities; (2) kinds and amounts of resources controlled; and (3) amount of these resources used by individual enterprises. This report is concerned with the first of these---enterprise inputs and costs and returns.

Enterprise budgets presented in this report include the more important crops produced on the two major soil groups in the area. The budgets are generally identified as being appropriate to sandy or clay soils. Sandy soils include sandy loams, fine sandy loams, loamy silt loams, and similar soils. The clay soils consist of silty clay loam, silty clays, and clay and saline soils. Where soils do not materially affect inputs or yields, the budgets are identified as applicable to all soils.

Individual farmers use different levels of inputs, particularly fertilizer, herbicides, and insecticides. To account for this difference among individual farmers, different input levels are presented for appropriate crops. The first of these is described as "high input practices". These practices would describe those farmers who use, if appropriate for the crop, higher fertilizer rates than recommended and more weed and insect control inputs than the modal group of farmers in the area. Farmers who use these levels of inputs are striving for higher yields, or are having more severe weed and insect problems than are generally encountered. It cannot be assumed that this level of inputs is more desirable, or reflects a more advanced technology.

"Usual input practices" describe the practices most commonly used by farmers in the area. This set of practices would more nearly describe the modal rather than the mean situation.

"More efficient practices" define input levels by farmers whose inputs are generally lower than either of the situations previously described. These farmers have yields that are often equal to or higher than those reported for high or usual input practices. "More efficient practices" usually result in lower production costs and larger net returns.

A fourth level of inputs, "more efficient practices with limited seedbed preparation", applies only to the cotton budgets. This category utilizes the same agricultural inputs and practices as those described under "more efficient practices" except in seedbed preparation. Practices for limited seedbed preparation were developed and recommended for cotton production in 1974 based on experimental results which indicated a five percent increase in yields (10).

Prices used in the budgets were developed from several sources. Machinery prices were obtained in late 1974 from Delta Area farm equipment dealers and reflect their best judgement as to expected 1975 prices. Table 1 presents tractor and machinery prices used in this report. Table 2 presents prices for agricultural chemicals obtained from area dealers in late 1974. Prices of some materials were increased an average of 10 percent over late 1974 prices obtained from dealers. Prices of other materials were those for which a 1975 price had been established. Table 3 presents price estimates for planting seed, fertilizers and other budget input materials.

Charges for aerial application of fertilizer, insecticides, herbicides, defoliants, and seed were obtained from aerial applicators in the area. These charges (Table 4) reflect the aerial applicator's anticipated prices for 1975.

Commodity prices reflect spot market prices during December 1974 and January 1975. Due to recent wide fluctuations in commodity prices, a lower and higher price was selected to provide for each commodity income data over a wider range of potential prices.

Crop yields used in the various budgets reflect the effects of soils, input levels, and planting patterns. Table 5 presents average yields as well as yield ranges associated with each budget.

POWER AND MACHINERY COSTS

In addition to estimated 1975 prices for farm machinery, Table 1 presents the performance rate, estimated length of life, average hours of annual use, and repair costs expressed as a percentage of new cost for each item of equipment. These estimates also are based on prices expected in 1975. Direct and fixed costs per hour and per acre are presented for each item except tractors.

Tractor costs are presented only as per hour costs. Cost per acre for tractors must be calculated by multiplying per hour costs by the performance rate of the tractor drawn implement being used.

Length of life of equipment was obtained from 1961 and 1972 reports (3, 4) with adjustments for equipment that has come into use since these reports were issued. The length of life for each item assumes that it will be used until it has zero salvage value. Performance rates and average hours of annual use were determined from field records kept by farmers in the area (4).

Repair costs are based on estimated total repairs over the life of the equipment, and are expressed as a percentage of new cost. These estimates were based on unpublished data from the National Cotton Costs Surveys of the Economic Research Service, USDA. Repair costs include parts, labor, tires, and battery replacement. Repairs are one component of direct machinery costs and are computed as follows:

$$\frac{\text{Purchase price x repairs as a percent of new cost}}{\text{Total hours of life}} \times \text{Performance rate} = \text{Repair cost per acre.}$$

The other components of direct machinery costs include fuel, oil, other lubricants, and hydraulic fluid. Costs of these are based on estimated average fuel consumption per hour of use and the price per unit of fuel ($0.30 per gallon for diesel fuel).

Fixed costs include depreciation and interest on machinery investment. Depreciation is based on estimated total hours of use over the life of the machine, and is computed by dividing purchase price by the total number of hours of use. This gives a depreciation cost per hour which is multiplied by performance rate to determine depreciation cost per acre.

Charges for interest on machinery investment are made on the basis of average annual investment and annual hours of use. Interest is calculated at a rate of 9 percent per annum, and charges per hour of use are computed as follows:

(1) $\frac{\text{Purchase price}}{2} \times 9 \text{ percent} = \text{Total annual interest}$

(2) $\frac{\text{Total annual interest}}{\text{Average hours of annual use}} = \text{Interest per hour of use}$

(3) Interest per hour of use x Performance rate = Interest per acre.

The procedure for computing direct and fixed machinery costs is available in a previous publication presenting budgets for the Delta area (3).

Total machinery costs per acre include depreciation, interest on investment, repairs, fuel where applicable, and oil and other lubricants. If a combination of machines or equipment is required to perform a single operation, the total cost per acre of use of all equipment used in the operation is shown in the budget.

ENTERPRISE BUDGETS

The basic technique used in this report is enterprise budgeting. Budgets for the different crops, soil situations, and production techniques were constructed on automatic data processing equipment. Each budget lists and describes all operations used to produce the crop. If an operation is followed by a times sign and a whole number (such as X2), it is duplicated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "apply lime X1/4", means that lime would be applied every four years, and the listed costs are one-fourth of total costs for that operation. The month the operation is usually performed is indicated along with direct and fixed tractor and equipment costs, labor costs, materials costs, and miscellaneous costs.

Labor is charged at a rate of $2.30 per hour. Miscellaneous costs include charges for custom services, hauling costs, ginning, drying, and storage costs where appropriate. A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interest charges on operating capital are for the period of time used and not for the whole year. Costs for self propelled harvesting equipment appear under equipment costs.

These budgets do not include such items as taxes, drainage, bookkeeping, pickup truck expenses, land rent charges, or management. Budgets are included for 6- and 8-row equipment for all row crops. The 110-124 horsepower tractor is the prime power source for both 6- and 8-row equipment.

For convenience all tables are placed after the text. Tables summarizing individual crop budgets are presented after the budget tables.

Cotton

Planted on Sandy Soils

Cotton production practices in the Mississippi-Louisiana Delta include seedbed preparation, planting, weed control, insect control, and harvesting. Seedbed preparation usually begins at the end of the previous year's harvesting season and continues up to the planting date. Deep tillage is done in the fall when possible. Most farmers intensify their seedbed preparation in February, March, and early April. This is generally limited only by the prevailing weather and soil type. Planting dates vary from the North to South Delta, but generally extend from April 15 through May 15.

Early weed control is generally accomplished by preplant or preemergence herbicide applications. Early cultivations are done without chemical weed control aids. As the season advances, cultivation, postemergence application of appropriate chemicals, and limited hand weed control measures are employed. Lay-by cultivation and postemergence chemical application are usually done in early July.

The level of labor input for hoeing in 1975 and thereafter is assumed to be below that of the previous year. An unusually high input for hoeing was reported by farmers in 1974 because of adverse weather (which limited the use of herbicides) and because they expected very favorable prices for cotton in the fall of 1974.

Insect control measures usually begin in late July, intensify during August, and continue into early September. Generally, three additional applications of insecticides are required in the Louisiana Delta because of the longer growing season. These three additional applications add $12.36 per acre to the costs of producing cotton reported in any cotton budget presented in this report.

Harvest begins in late September and generally is concluded by the end of November. Pre-harvest defloliation is practiced by most producers. In 1974, about 70 percent of the cotton in the Mississippi Delta was picked twice.

Solid--Solid planted cotton in the Delta Area of Mississippi-Louisiana is planted on row centers 38" or 40" wide. Budgets for solid planted cotton utilizing various equipment combinations, technologies, and time sequences of field operations on each type soil are included in Tables 6 through 13.

Skip-Row--Previous research has indicated that yield responses from skip-row patterns differ from those of cotton planted in a solid pattern (5). However, the variation in per acre production cost among the various patterns is often ignored. This publication includes specified direct cost data for the "2 x 1" skip-row planting pattern, which is the most common skip-row pattern currently used in the area. Production costs associated with "2 x 1" skip-row are calculated on two bases: (1) "planted basis" and (2) "land basis".

To obtain one acre of cotton when utilizing the "2 x 1" planting pattern, one and one-half acres of land are required. This has been traditionally referred to as a "planted acre" of cotton and is referred to as "planted basis" in this publication. Tables 14 through 21 report costs associated with producing a planted acre of "2 x 1" cotton. With the removal of allotments for cotton, there is a need to look at cost and returns associated with "2 x 1" planting patterns from one acre of land. In such a case, one acre of land is used to produce 0.67 acres of planted cotton and is designated as "2 x 1" planting pattern, "land basis" in this publication. Tables 22 through 29 indicate per acre production costs when the "2 x 1" planting pattern, "land basis" is used.

Planted on Clay Soils

Budgets for solid-planted cotton grown on clay soils are included in Tables 30 through 37. Skip-row patterns have been utilized infrequently on these soil types in the Delta. Primary differences in production practices are equipment size and time of seedbed preparation.

Compared to solid-planted cotton on sandy soils, shallow tillage is required for clay soils. However, greater expenditures are necessary for chemical weed control due to the higher per-acre rates required for a given level of control. Generally, larger quantities of nitrogen are applied to the clay soils. These fertilizers are of a different type (either liquid or dry) and are usually more expensive than those used on sandy soils.

Unless cotton follows an early maturing soybean variety grown in the previous crop season, days available for fieldwork on clay soil types are a serious restriction on fall seedbed preparation procedures. Since more operations are utilized for spring seedbed preparation than for fall preparation greater tractor, equipment, and labor costs are incurred.

Soybeans

Planted on Sandy Soils

Tables 38 through 43 present soybean budgets for sandy soils. Soybeans are normally planted from May 10 to June 15. Varieties have been developed to permit some variability in both planting dates and harvesting dates. This crop is adapted to a wide range of soil types and conditions, and meshes well into an overall farm organization in the Delta. When compared to cotton, direct production costs range from $149 to $230 less per acre. This difference arises from differences in operating capital requirements for the two crops. A difference of this magnitude may be quite significant in cases where capital is a restrictive resource.

Producers usually incorporate one of the following weed control programs into their soybean production system: (1) a postemergence chemical application, (2) an incorporated preplant herbicide, and a postemergence application, or (3) a post-plant preemergence applied chemical plus a postemergence application.

In addition to equipment size and weed control methods, the primary variable in the cost of soybean production is expenditure incurred in seedbed preparation. The most efficient producers are able to reduce the number of field operations, thereby reducing the cost of production.

Planted on Clay Soils

Tables 44 through 51 contain budgets for soybeans produced on the heavier-textured soils. The major difference between these budgets and the sandy soil budgets is the use of an incorporated herbicide in all clay soil budgets.

Tables 52 and 53 present production costs for soybeans planted behind wheat on clay soils. These budgets also apply to soybeans planted behind wheat on sandy soils. No preplant herbicide is used in these budgets. For soybeans to grow and produce at the yields indicated in Table 5, rainfall following disking is required before the soybeans can be planted. It is assumed that a preplant herbicide would not be used because of the risk involved in obtaining sufficient rainfall to assure moisture for germination of soybean seed. A preemergence herbicide would be used in lieu of preplant herbicides if there is sufficient moisture for planting.

Rice

The production of rice in the Mississippi-Louisiana Delta has been limited by government programs. However, in 1974 and again in 1975, farmers without rice allotments have been permitted to produce rice. This has led to an increased interest in information on inputs and costs associated with rice production.

Tables 54 and 55 present budgets for high and usual levels of inputs for rice produced on clay soils. The high input rice budget reflects additional herbicide inputs where grass probelms are unusually severe. The additional herbicide input, as well as the grass problem, account for the lower yield associated with high input practices when compared with usual input practices. These budgets also apply to shallow silt loam soils with the exception that these soils may require one less operation in land preparation and have slightly lower water costs.

Wheat For Grain

Table 56 presents inputs and costs associated with producing one acre of wheat on clay soils. This budget would be equally adaptable to wheat produced on sandy soils. It also applies to oat production except that seed price would have to be modified to reflect the cost of oat seed. Hauling costs per acre increase for oat production because of the higher yield.

Fallow

Some fields are fallowed in the Mississippi-Louisiana Delta in most years. This is usually done to reduce severe perennial weed infestations, particularly Johnsongrass.

Inputs for fallowing vary from year to year because of variable rainfall. Table 57 indicates inputs for one year's fallow, which should be adequate to reduce grass and weed problems in following years if rainfall is not above normal.

Corn (Grain and Silage)

Production of corn, grain sorghum, and intermediate sorghum is not widespread in the Delta. Thus, the budgets presented in this report incorporate information from a limited number of producers, augmented with data from experiment station results. Good yields have been reported for corn grown on sandy soils in the Delta when adequate water is available (6). However, rainfall distribution is frequently not favorable for corn production. Thus, to insure adequate moisture at the right time, facilities for irrigation are needed. Corn is generally planted from March 25 to April 15 and is usually harvested from September 1 to October 15. Silage normally is harvested from July 15 to August 15.

Tables 58 through 61 contain the usual inputs utilized for corn grain and corn silage production in the Mississippi-Louisiana Delta, utilizing 6- and 8-row equipment. The primary difference in costs is between harvesting costs for grain and silage.

Grain Sorghum (Grain and Silage)

Grain sorghum production fits well into the overall cotton-soybean farm organization on some farms in the Mississippi-Louisiana Delta. Early grain sorghum is generally planted in early April and harvested as grain in late July or early August. Harvest of early planted sorghum silage is usually accomplished in early July. However, a wide range in grain sorghum planting dates is possible, extending from April 10 through July 10, with harvesting times being closely tied to planting date. Tables 62 through 65 contain budgets for grain sorghum (grain and silage) production utilizing 6- and 8-row equipment.

Wheat and Intermediate Sorghum Silage

Wheat silage and intermediate sorghum silage crops for inclusion in beef finishing systems have shown promise in research trials. They tend to increase the efficiency of a fixed silage storage facility and land resource (1).

Wheat silage is normally harvested in May. This provides about two additional weeks for effective double cropping of wheat and soybeans. Tables 66 through 68 contain budgets for these crops. These budgets are for clay soils only, as very scanty data are available for sandy soils.

A summary of the budgets presented in this section is presented in Tables 69, 70 and 71. Data in these tables are summarized by type of expense---tractor, machinery, labor, etc.

RETURNS

Price fluctuations make estimation of returns difficult. Estimates of returns based on a range of product prices and on high, average and low yields are presented in Tables 72, 73 and 74. Table 72 presents returns to cotton with lint valued at $0.30, $0.40, and $0.50 per pound. Cottonseed prices were assumed to be $0.025, $0.050, and $0.075 per pound when lint prices were $0.30, $0.40, and $0.50 per pound, respectively.

Table 73 presents returns to soybeans over the expected yield ranges, with soybeans valued at $3.50, $6.50, and $9.50 per bushel. Table 74 presents similar data for grain crops at various yield and price levels. No returns for silage crops are shown, as they are assumed to be intermediate products for livestock feed.

The estimates presented in Tables 72, 73, and 74 do not include land charges or general farm overhead. Subtracting these items gives an approximate return to management.

DAYS SUITABLE FOR FIELDWORK

Any analysis of the farm firm in the Delta Area of Mississippi-Louisiana must account for the number of days that are suitable for fieldwork. Weather, particularly rainfall, limits the number of days that farm machinery can be used. Machinery use is more restricted on clay than on sandy soils.

Days suitable for fieldwork are the key to the level of machinery investment found on farms in a given area. Farmers feel that they must have sufficient machinery to perform the required tasks in a timely manner in most years. Appendix Tables 1 through 4 present data on days suitable for tillage and non-tillage operations, by month, on sand and clay soils. These data were obtained from an earlier study of days suitable for fieldwork in the area (2).

SUMMARY

Input and cost budgets are reported for major crops produced in the Mississippi-Louisiana Delta. The budgets are for sandy and clay soils, for 6- and 8-row equipment, and for various levels of inputs. Budgets are included for cotton (both solid planted and 2 x 1), soybeans, rice, wheat, fallow, corn, and grain sorghum. Silage budgets are also presented for wheat, corn, grain sorghum, and intermediate grain sorghum. These budgets reflect projected 1975 prices for production inputs and are based on 1974 practices. The budgets were generated with the assistance of a budget generator utilizing modern computer technology.

A table of estimated returns for selected prices and yields is presented for all crops other than silage crops. Appendix tables indicate days suitable for tillage and non-tillage operations, by month, on sandy and clay soils.

Table 1. Estimated power and machinery performance rates, estimated life, purchase price, repair costs, and direct and fixed costs per hour and per acre, Louisiana-Mississippi Delta, 1975.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1975 price	Repair costs % of new cost	Direct costs		Fixed costs	
							per hour	per acre	per hour	per acre
		Hours	Years	Hours	Dollars	Percent	Dollars			
Tractor	90 - 100		12	1,000	12,650	93	3.30	-	1.61	-
Tractor	100 - 110		12	1,000	14,850	79	3.74	-	1.91	-
Tractor	110 - 125		12	1,000	17,050	74	4.27	-	2.19	-
Tractor	> 125		12	1,000	21,450	70	4.95	-	2.76	-
Tractor (4-wheel drive)	> 125		12	1,000	30,250	70	5.61	-	3.88	-
Stalk shredder	2-row	.30	10	185	825	40	.18	.05	.65	.20
Stalk shredder	4-row	.24	10	185	2,530	40	.55	.13	1.98	.48
Subsoiler	2-row	.62	15	100	605	100	.40	.25	.67	.42
Subsoiler	3-row	.52	15	100	990	100	.66	.34	1.11	.58
Deep chisel	7-shank	.45	15	100	1,265	100	.84	.38	1.41	.63
Deep chisel	11-shank	.40	15	100	2,090	100	1.39	.56	2.33	.93
Chisel plow	16 ft.	.22	12	150	1,760	70	.68	.15	1.51	.33
Chisel plow	21 ft.	.14	12	150	2,750	70	1.07	.15	2.35	.33
Middle breaker	6-row	.14	12	160	2,200	80	.92	.13	1.76	.25
Middle breaker	8-row	.11	12	160	2,750	80	1.14	.12	2.20	.24
Moldboard plow (2-way)	4-bottom	.30	15	120	2,860	80	1.27	.38	2.66	.80
Disk harrow	21 ft.	.14	10	180	5,500	80	2.44	.34	4.44	.62
Disk harrow	28 ft.	.10	10	180	7,700	80	3.42	.34	6.20	.62
Section harrow	6-row	.10	10	200	825	75	.31	.03	.59	.06
Section harrow	8-row	.08	10	200	1,045	75	.39	.03	.76	.06
Soil pulverizer	6-row	.15	10	100	3,080	75	2.31	.35	4.47	.67
Soil pulverizer	8-row	.12	10	100	4,675	75	3.51	.42	6.78	.81
Field cultivator	21 ft.	.10	10	100	2,140	65	1.39	.14	3.11	.31
Field cultivator	42 ft.	.06	10	100	4,965	70	3.47	.21	7.20	.43
Spin spreader	-	.10	8	100	715	80	.72	.07	1.21	.12
Disk bedder	6-row	.13	8	160	1,980	80	1.24	.16	2.11	.27
Disk bedder	8-row	.10	8	160	2,530	80	1.58	.16	2.69	.27
Disk bedder & fertilizer	6-row	.16	8	160	2,365	80	1.48	.24	2.51	.40
Disk bedder & fertilizer	8-row	.12	8	160	3,025	80	1.89	.23	3.21	.39
Liquid fertilizer applicator	6-row	.12	8	150	3,000	80	2.00	.24	3.40	.41
Liquid fertilizer applicator	8-row	.08	8	150	3,400	80	2.27	.18	3.85	.31
Grain drill	12 ft.	.24	10	100	2,640	70	1.85	.44	3.83	.92
Grain drill	32 ft.	.09	10	100	8,360	75	6.27	.56	12.12	1.09
Planter + preemerge rig--cotton	6-row	.18	12	150	5,500	70	2.14	.38	4.71	.85
Planter + preemerge rig--cotton	8-row	.12	12	150	7,150	70	2.78	.33	6.11	.73
Planter	6-row	.14	12	150	4,950	70	1.92	.27	4.23	.59
Planter	8-row	.10	12	150	6,600	70	2.57	.26	5.65	.56
Cultivator-early	6-row	.21	12	200	2,750	80	.92	.19	1.77	.37
Cultivator-early	8-row	.16	12	200	4,400	80	1.47	.24	2.82	.45
Cultivator-late	6-row	.14	12	200	2,750	80	.92	.13	1.77	.25
Cultivator-late	8-row	.10	12	200	4,400	80	1.47	.15	2.82	.28
Cultivator + postemerge rig-early	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Cultivator + postemerge rig-early	8-row	.18	12	200	5,500	80	1.83	.33	3.53	.64
Cultivator + postemerge rig-late	6-row	.18	12	200	3,630	80	1.21	.22	2.33	.42
Cultivator + postemerge rig-late	8-row	.13	12	200	5,500	80	1.83	.24	3.53	.46
Sprayer-tractor mounted	21 ft.	.18	8	200	1,045	100	.65	.12	.89	.16
Sprayer-high clearance	14-row	.08	8	350	8,800	80	3.58	.45	4.27	.34
Cotton picker-first picking	2-row	.79	10	200	38,000	75	17.30	13.67	27.55	21.76
Cotton picker-second picking	2-row	.59	10	200	38,000	75	17.30	10.21	27.55	16.25
Combine - soybean	20 ft.	.23	8	200	28,000	80	17.35	3.99	23.80	5.47
Combine - rice	16 ft.	.75	8	200	33,500	80	20.30	15.22	28.48	21.36
Combine - corn	4-row	.45	8	200	29,000	80	17.90	8.05	24.64	11.09
Forage harvester - corn	2-row	.94	10	200	6,820	80	5.46	5.13	4.95	4.65
Forage harvester - grain sorghum	2-row	.66	10	200	6,820	80	5.46	3.60	4.95	3.27
Forage harvester - forage sorghum	2-row	1.41	10	200	6,820	80	5.46	7.70	4.95	6.98
Forage harvester - small grain	2-row	.66	10	200	6,710	80	5.37	3.55	4.86	3.21
Grain cart	-	.44	12	200	2,695	80	.90	-	1.73	-
Forage wagon	10-ton	-	15	200	3,685	60	1.47	-	4.12	-
Forage blower	-	-	15	200	1,815	50	.60	-	2.03	-
Cotton trailer	10-bale	-	12	200	2,420	25	.25	-	1.55	-
Levee plow	-	.04	10	100	1,430	80	1.14	.05	2.07	.08
Blade-tractor mounted	-	-	10	100	1,430	60	.86	-	2.07	-
Pipe	30 ft.	.10	12	100	770	45	.29	.03	.99	.10

Table 2. Estimated material prices, Delta area of Louisiana-Mississippi, 1975.

Item	Unit[1/]	Estimated price
		Dollars
Defoliant:		
Def	lb.	1.83
Folex	lb.	1.83
Sodium chlorate	lb.	.37
Herbicides:		
Amiben	lb.	5.02
Atrazine	lb.	3.06
Basagran	lb.	13.20
Butoxone	lb.	9.66
Caparol (WP)	lb.	4.25
Caparol + MSMA	pt.	1.18
Cotoran	lb.	5.95
2,4-D	lb.	1.75
Dowpon	lb.	1.40
DSMA	lb.	.90
Dyanap	pt.	.81
Glytac	lb.	1.64
Karmex (DL)	lb.	5.07
Karmex (WP)	lb.	3.20
Lasso	lb.	3.61
Lorox	lb.	6.76
MSMA	lb.	1.16
MSMA + Surfactant	lb.	1.24
Ordram	lb.	6.80
Paraquat	lb.	17.87
Planavin	lb.	5.89
Prefar	lb.	3.02
Probe	lb.	6.43
Propanil	lb.	2.27
Propazine	lb.	3.91
Sencor	lb.	14.92
Herbicides (cont.):		
Surfactant	pt.	.47
Dinitro	lb.	1.32
Tenoran	lb.	6.28
Treflan	lb.	6.10
2,4,5-T	lb.	4.35
Fungicides:		
Soil Treater XXX	lb.	.96
Stauffer 30-30	lb.	.92
Terraclor Super X	lb.	.69
Insecticides:		
Aldrin	lb.	2.09
Azodrin	lb.	3.70
Bidrin	lb.	4.59
Cygon 267	lb.	6.57
Disyston	lb.	3.33
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	1.22
Furadan	lb.	9.33
Guthion	lb.	4.75
Kelthane	lb.	4.67
Lannate	lb.	9.53
Methyl parathion	lb.	1.96
Sevin	lb.	1.45
Temik	lb.	10.60
Toxaphene	lb.	.68
Toxaphene + Methyl parathion	pt.	.96
Lo-Drift	pt.	1.89
Fundal	lb.	8.80

[1/] Expressed on a per pound active basis except for materials priced in volume.

Table 3. Estimated seed, fertilizer, and other prices, Delta area of Louisiana-Mississippi, 1975.

Item	Unit	Estimated price
		Dollars
Seed:		
Alfalfa	lb.	1.32
Corn	lb.	.398
Cotton, single treated	lb.	.204
Cotton, double treated	lb.	.2410
Cotton, triple treated	lb.	.2773
Grain sorghum	lb.	.290
Oat	bu.	2.03
Soybean	lb.	.167
Wheat	lb.	.118
Rice	lb.	.172
Fertilizer:		
0-24-24	cwt.	6.43
8-24-24	cwt.	6.32
13-13-13	cwt.	6.38
Ammonium nitrate, 33%	cwt.	8.02
Anhydrous ammonia, 82%	cwt.	8.25
Urea, solid	cwt.	7.70
Urea, liquid	cwt.	5.42
Other:		
Urea, feed grade	lb.	.11
Limestone, feed grade	lb.	.01

Table 4. Summary of aerial application costs, Delta area of Louisiana-Mississippi, estimated 1975.

Application activity	Cost per acre	Cost per 100 pounds
	Dollars	Dollars
Fertilizer	-	2.00
Insecticide	0.80	-
Herbicide[1]	1.50	-
Defoliant	1.50	-
Seed	-	2.00

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[1] Aerial application charges for 2,4-D and 2,4,5-T are generally $3.00 to $3.50 per acre. Higher charges for phenoxy herbicides are required to cover extra cost of insurance and fixed cost of special aircraft needed for these types of herbicides.

Table 5. Crop yields per acre on sand and clay soils, Louisiana-Mississippi Delta, 1975.

Crop	Unit	Average yield	Range
Cotton lint			
Sand			
Solid			
High input	lb.	752	702-802
Usual input	lb.	730	680-780
More efficient	lb.	750	700-800
Limited seedbed preparation	lb.	767	717-817
2 x 1			
High input	lb.	662	612-712
Usual input	lb.	643	593-693
More efficient	lb.	660	610-710
Limited seedbed preparation	lb.	675	625-725
Clay			
Solid			
High input	lb.	550	500-600
Usual input	lb.	550	500-600
More efficient spring seedbed preparation	lb.	550	500-600
More efficient fall seedbed preparation	lb.	550	500-600
Cottonseed			
Sand			
Solid			
High input	lb.	1166	1090-1242
Usual input	lb.	1132	1054-1209
More efficient	lb.	1162	1085-1240
Limited seedbed preparation	lb.	1189	1111-1266
2 x 1			
High input	lb.	1026	949-1104
Usual input	lb.	997	919-1074
More efficient	lb.	1023	946-1101
Limited seedbed preparation	lb.	1046	969-1124
Clay			
Solid			
High input	lb.	853	775-930
Usual input	lb.	853	775-930
More efficient spring seedbed preparation	lb.	853	775-930
Cottonseed			
Clay			
Solid (cont.)			
More efficient fall seedbed preparation	lb.	853	775-930
Soybeans			
Sand			
High input	bu.	25	18-35
Usual input	bu.	22	15-30
More efficient	bu.	25	18-35
Clay			
High input	bu.	24	20-35
Usual input	bu.	23	18-32
More efficient	bu.	25	18-35
Following rice	bu.	28	20-40
Following wheat	bu.	18	10-25
Rice			
Clay			
High input	bu.	90	75-100
Usual input	bu.	100	90-110
Wheat			
Clay			
Usual input	bu.	40	30-50
Corn			
Sand			
Usual input	bu.	85	70-100
Grain sorghum			
Clay	cwt.	33	30-38
Corn for silage	ton	11	9-15
Grain sorghum	ton	5	4-7
High cut wheat for silage	ton	5.5	3-7
Intermediate sorghum silage	ton	19	17-21

ABLE 6. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, HIGH INPUT PRACICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

PERATION ESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PPLY LINE X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
IELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
ISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
ISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
ISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
IELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ISK BED + FERT	4	.68	.35	.24	.40	.37	12.13	.00	14.17
OW CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
LANT + PRE	5	.85	.43	.42	.93	.91	14.62	.00	18.16
RAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
ULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PPLY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.05
ULT + POST EARLY	5	1.02	.53	.29	.56	.55	3.37	.00	6.32
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
AND WEED CONTROL	6	.00	.00	.00	.00	8.20	.00	.00	9.20
ULT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
ULT + POST LATE	5	.77	.39	.22	.42	.41	.67	.00	2.89
AND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	7	.77	.39	.22	.42	.41	6.76	.00	8.98
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PPLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
PPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
PPLY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.36
PPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
AUL	10	.00	.00	.00	.00	.00	.00	6.83	6.83
ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
AUL	10	.00	.00	.00	.00	.00	.00	1.70	1.70
IN	10	.00	.00	.00	.00	.00	.00	60.16	60.16
TAL SPECIFIED COSTS		13.86	7.08	26.74	43.07	30.80	78.23	88.22	288.01
TEREST ON OPERATING CAPITAL									6.65
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									294.65

TABLE 7. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, HIGH INPUT PRA TICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.31
DISK BED + FERT	4	.51	.26	.23	.39	.28	12.13	.00	13.80
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.56	.29	.36	.80	.61	14.62	.00	17.25
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.09
APPLY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.05
CULT + POST EARLY	5	.77	.39	.33	.64	.41	3.37	.00	5.92
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.92
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.51
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.51
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
CULT + POST LATE	7	.56	.28	.24	.46	.30	6.76	.00	8.60
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
APPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.36
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
HAUL	10	.00	.00	.00	.00	.00	.00	6.83	6.83
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
HAUL	10	.00	.00	.00	.00	.00	.00	1.70	1.70
GIN	10	.00	.00	.00	.00	.00	.00	60.16	60.16
TOTAL SPECIFIED COSTS		11.65	5.95	26.87	43.30	29.46	78.23	88.22	283.69
INTEREST ON OPERATING CAPITAL									6.50
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									290.19

ABLE 8. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, USUAL INPUT PRAC-
CES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

PERATION ESCRIPTION	MONTH	----TRACTOR----		----EQUIPMENT----					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		----DOLLARS----							
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
ISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	3.05	.00	6.15
ISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
IELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
ISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ISK BED + FERT	4	.68	.35	.24	.40	.37	10.06	.00	12.11
OW CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
LANT + PRE	5	.85	.43	.42	.93	.91	13.39	.00	16.93
RAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
ULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
ULT + POST EARLY	5	1.02	.53	.29	.56	.55	1.15	.00	4.11
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
AND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
ULT + POST LATE	6	.77	.39	.22	.42	.41	3.37	.00	5.59
ULT + POST LATE	6	.77	.39	.22	.42	.41	1.63	.00	3.85
AND WEED CONTROL	7	.00	.00	.00	.00	9.20	.00	.00	9.20
ULT + POST LATE	7	.77	.39	.22	.42	.41	6.76	.00	8.98
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PPLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
PPLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
PPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
AUL	10	.00	.00	.00	.00	.00	.00	6.63	6.63
ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
AUL	10	.00	.00	.00	.00	.00	.00	1.66	1.66
IN	10	.00	.00	.00	.00	.00	.00	58.40	58.40
TAL SPECIFIED COSTS		12.83	6.56	26.26	42.14	32.46	69.77	83.21	273.23
TEREST ON OPERATING CAPITAL									6.15
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									279.38

TABLE 9. ESTIMATED COST PER ACRE, SOLID COTTON, SNADY SOIL, USUAL INPUT PRA TICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.3
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.4
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
DISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	3.05	.00	6.1
DISK HARROW 21 FT	3	.50	.31	.34	.62	.32	.00	.00	2.1
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.3
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.31
DISK BED + FERT	4	.51	.26	.23	.39	.28	10.06	.00	11.74
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.56	.29	.36	.80	.61	13.39	.00	16.01
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.09
APPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
CULT + POST EARLY	5	.77	.39	.33	.64	.41	1.15	.00	3.70
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.92
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
CULT + POST LATE	6	.56	.28	.24	.46	.30	3.37	.00	5.21
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.63	.00	3.47
HAND WEED CONTROL	7	.00	.00	.00	.00	8.20	.00	.00	9.20
CULT + POST LATE	7	.56	.28	.24	.46	.30	6.76	.00	8.60
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
HAUL	10	.00	.00	.00	.00	.00	.00	6.63	6.63
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
HAUL	10	.00	.00	.00	.00	.00	.00	1.66	1.66
GIN	10	.00	.00	.00	.00	.00	.00	58.40	58.40
TOTAL SPECIFIED COSTS		10.63	5.43	26.39	42.37	31.12	69.77	83.21	268.91
INTEREST ON OPERATING CAPITAL									6.00
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									274.91

ABLE 10. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, MORE EFFICIENT INUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		---TRACTOR---		---EQUIPMENT---					
PERATION ESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		---	---	---	DOLLARS	---	---	---	---
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
UBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.10
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
IELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
ISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ISK BED + FERT	4	.68	.35	.24	.40	.37	9.07	.00	11.12
OW CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
LANT + PRE	5	.85	.43	.42	.93	.91	14.62	.00	18.16
RAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
ULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
ULT + POST EARLY	5	1.02	.53	.29	.56	.55	3.37	.00	6.32
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
AND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
ULT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
AND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	7	.77	.39	.22	.42	.41	4.53	.00	6.75
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PPLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.64
PPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
PPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
AUL	10	.00	.00	.00	.00	.00	.00	6.81	6.81
ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
AUL	10	.00	.00	.00	.00	.00	.00	1.70	1.70
IN	10	.00	.00	.00	.00	.00	.00	60.00	60.00
TAL SPECIFIED COSTS		14.11	7.21	25.61	40.98	28.52	59.63	84.24	260.32
TEREST ON OPERATING CAPITAL									5.99
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									266.31

TABLE 11. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, MORE EFFICIENT I PUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.3
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.4
SUBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.1
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.3
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.3
DISK BED + FERT	4	.51	.26	.23	.39	.28	9.07	.00	10.7
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.2
PLANT + PRE	5	.56	.29	.36	.80	.61	14.62	.00	17.2
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.5
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.0
APPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.8
CULT + POST EARLY	5	.77	.39	.33	.64	.41	3.37	.00	5.9
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.9
HAND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.9
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.5
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.5
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.9
CULT + POST LATE	7	.56	.28	.24	.46	.30	4.53	.00	6.3
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.5
APPLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.6
APPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.6
APPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.9
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.7
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.2
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.0
HAUL	10	.00	.00	.00	.00	.00	.00	6.81	6.8
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.4
HAUL	10	.00	.00	.00	.00	.00	.00	1.70	1.70
GIN	10	.00	.00	.00	.00	.00	.00	60.00	60.00
TOTAL SPECIFIED COSTS		11.91	6.08	25.74	41.21	27.19	59.63	84.24	255.9
INTEREST ON OPERATING CAPITAL									5.65
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPFRATING CAPITAL									261.64

ABLE 12. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, LIMITED SEEDBED REPARATION, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
PERATION ESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
UBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.10
ISK BED	3	.56	.28	.16	.27	.30	.00	.00	1.57
ISK BED + FERT	4	.68	.35	.24	.40	.37	9.07	.00	11.12
OW CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
LANT + PRE	5	.85	.43	.42	.93	.91	13.39	.00	16.93
RAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
ULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
AND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
ULT + POST LATE	7	.77	.39	.22	.42	.41	.67	.00	2.89
AND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PPLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.64
PPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
PPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
AUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
AUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
IN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TAL SPECIFIED COSTS		11.04	5.64	24.95	39.59	26.87	53.87	85.79	247.75
TEREST ON OPERATING CAPITAL									5.29
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									253.04

TABLE 13. ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, LIMITED SEEDBE PREPARATION, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.3
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.4
SUBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.1
DISK BED	3	.43	.22	.16	.27	.23	.00	.00	1.3
DISK BED + FERT	4	.51	.26	.23	.39	.28	9.07	.00	10.7
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.2
PLANT + PRE	5	.56	.29	.36	.80	.61	13.39	.00	16.01
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.5
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.0
APPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.8
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.92
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.92
HAND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.51
CULT + POST LATE	7	.56	.28	.24	.46	.30	.67	.00	2.51
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APPLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.64
APPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
APPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
HAUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
HAUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
GIN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TOTAL SPECIFIED COSTS		9.05	4.61	25.06	39.78	25.64	53.87	85.79	243.80
INTEREST ON OPERATING CAPITAL									5.10
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									248.91

ABLE 14. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, HIGH NPUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
PERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
FIELD CULT 21 FT	3	.64	.33	.21	.46	.34	.00	.00	1.99
DISK HARROW 21 FT	4	.90	.46	.51	.93	.48	.00	.00	3.28
DISK + INCOR 21 FT	4	1.15	.59	.84	1.44	.62	4.57	.00	9.22
DISK HARROW 21 FT	4	.90	.46	.51	.93	.48	.00	.00	3.28
FIELD CULT 21 FT	4	.64	.33	.21	.46	.34	.00	.00	1.99
DISK BED	4	.83	.43	.24	.40	.45	.00	.00	2.35
DISK BED + FERT	4	1.02	.53	.36	.60	.55	12.13	.00	15.19
ROW CONODTION	5	1.15	.59	.63	1.21	.62	.00	.00	4.20
PLANT + PRE	5	1.27	.65	.63	1.40	1.37	14.62	.00	19.94
TRAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
CULTIVATE EARLY	5	1.35	.69	.28	.55	.72	.00	.00	3.60
APPLY MSMA AIR X2	5	.00	.00	.00	.00	.14	7.44	4.50	12.08
CULT + POST EARLY	5	1.54	.79	.43	.84	.83	3.37	.00	7.80
CULT + POST EARLY	6	1.54	.79	.43	.84	.83	3.37	.00	7.80
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
CULT + POST LATE	6	1.15	.59	.33	.63	.62	.67	.00	4.00
CULT + POST LATE	6	1.15	.59	.33	.63	.62	.67	.00	4.00
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
CULT + POST LATE	7	1.15	.59	.33	.63	.62	6.76	.00	10.09
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS GROUND X2	7	.00	.00	1.26	.95	.52	7.33	.00	10.05
APPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.03
APPLY INS AIR X3	8	.00	.00	.00	.00	.10	14.83	3.60	18.54
APPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
1ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
HAUL	10	.00	.00	.00	.00	.00	.00	9.01	9.01
2ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
HAUL	10	.00	.00	.00	.00	.00	.00	2.26	2.26
GIN	10	.00	.00	.00	.00	.00	.00	79.44	79.44
OTAL SPECIFIED COSTS		20.29	10.38	30.16	48.82	35.15	91.05	119.17	355.03
NTEREST ON OPERATING CAPITAL									8.35
OTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									363.37

TABLE 15. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, HIG INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
FIELD CULT 21 FT	3	.64	.33	.71	.46	.34	.00	.00	1.99
DISK HARROW 21 FT	4	.90	.46	.51	.93	.48	.00	.00	3.28
DISK + INCOR 21 FT	4	1.15	.59	.84	1.44	.62	4.57	.00	9.22
DISK HARROW 21 FT	4	.90	.46	.51	.93	.48	.00	.00	3.28
FIELD CULT 21 FT	4	.64	.33	.21	.46	.34	.00	.00	1.99
DISK BED	4	.64	.33	.24	.40	.34	.00	.00	1.96
DISK BED + FERT	4	.77	.39	.34	.59	.41	12.13	.00	14.63
ROW CONDITION	5	.69	.35	.56	1.09	.37	.00	.00	3.06
PLANT + PRE	5	.75	.39	.49	1.07	.41	14.62	.00	18.13
TRAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
CULTIVATE EARLY	5	.92	.47	.32	.60	.49	.00	.00	2.80
APPLY MSMA AIR X2	5	.00	.00	.00	.00	.14	7.44	4.50	12.08
CULT + POST EARLY	5	1.03	.53	.44	.86	.55	3.37	.00	6.78
CULT + POST EARLY	6	1.03	.53	.44	.86	.55	3.37	.00	6.78
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
CULT + POST LATE	6	.74	.38	.32	.62	.40	.67	.00	3.14
CULT + POST LATE	6	.74	.38	.32	.62	.40	.67	.00	3.14
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
CULT + POST LATE	7	.74	.38	.32	.62	.40	6.76	.00	9.22
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS GROUND X2	7	.00	.00	1.26	.95	.52	7.33	.00	10.05
APPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.03
APPLY INS AIR X3	8	.00	.00	.00	.00	.10	14.83	3.60	18.54
APPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
1ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
HAUL	10	.00	.00	.00	.00	.00	.00	9.01	9.01
2ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
HAUL	10	.00	.00	.00	.00	.00	.00	2.26	2.26
GIN	10	.00	.00	.00	.00	.00	.00	79.44	79.44
TOTAL SPECIFIED COSTS		15.19	8.28	29.96	48.40	32.66	91.05	119.17	345.71
INTEREST ON OPERATING CAPITAL									8.06
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									353.78

ABLE 16. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, USUAL NPUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

PERATION ESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
HISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
HISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
ISK + INCOR 21 FT	3	1.15	.59	.84	1.44	.62	4.57	.00	9.22
ISK HARROW 21 FT	3	.90	.46	.51	.93	.48	.00	.00	3.28
IELD CULT 21 FT	3	.64	.33	.21	.46	.34	.00	.00	1.99
ISK BED	4	.83	.43	.24	.40	.45	.00	.00	2.35
ISK BED + FERT	4	1.02	.53	.36	.60	.55	10.06	.00	13.13
OW CONDITION	5	1.15	.59	.83	1.21	.62	.00	.00	4.20
LANT + PRE	5	1.27	.65	.63	1.40	1.37	13.39	.00	18.70
RAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
ULTIVATE EARLY	5	1.35	.69	.28	.55	.72	.00	.00	3.60
PPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.28
ULT + POST EARLY	5	1.54	.79	.43	.84	.83	1.15	.00	5.58
ULT + POST EARLY	6	1.54	.79	.43	.84	.83	3.37	.00	7.80
AND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
ULT + POST LATE	6	1.15	.59	.33	.63	.62	3.31	.00	6.63
ULT + POST LATE	6	1.15	.59	.33	.63	.62	1.57	.00	4.89
AND WEED CONTROL	7	.00	.00	.00	.00	9.20	.00	.00	9.20
ULT + POST LATE	7	1.15	.59	.33	.63	.62	6.76	.00	10.09
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
PPLY INS GROUND X2	7	.00	.00	1.26	.95	.52	7.33	.00	10.05
PPLY INS AIR X3	8	.00	.00	.00	.00	.10	16.48	3.60	20.19
PPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
AUL	10	.00	.00	.00	.00	.00	.00	8.75	8.75
ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
AUL	10	.00	.00	.00	.00	.00	.00	2.19	2.19
IN	10	.00	.00	.00	.00	.00	.00	77.12	77.12
TAL SPECIFIED COSTS		18.75	9.59	29.44	47.42	36.48	80.53	112.02	334.25
TEREST ON OPERATING CAPITAL									7.64
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									341.90

TABLE 17. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, USUA INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
DISK + INCOR 21 FT	3	1.15	.59	.84	1.44	.62	4.57	.00	9.22
DISK HARROW 21 FT	3	.90	.46	.51	.93	.48	.00	.00	3.28
FIELD CULT 21 FT	3	.64	.33	.21	.46	.34	.00	.00	1.99
DISK BED	4	.64	.33	.24	.40	.34	.00	.00	1.96
DISK BED + FERT	4	.51	.26	.23	.39	.28	10.06	.00	11.74
ROW CONDITION	5	.69	.35	.56	1.09	.37	.00	.00	3.06
PLANT + PRE	5	.75	.39	.49	1.07	.81	13.39	.00	16.90
TRAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
CULTIVATE EARLY	5	.92	.47	.32	.60	.49	.00	.00	2.80
APPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.28
CULT + POST EARLY	5	1.03	.53	.44	.86	.55	1.15	.00	4.57
CULT + POST EARLY	6	1.03	.53	.44	.86	.55	3.37	.00	6.78
HAND WEED CONTROL	6	.00	.00	.00	.00	8.20	.00	.00	9.20
CULT + POST LATE	6	.74	.38	.32	.62	.40	3.37	.00	5.84
CULT + POST LATE	6	.74	.38	.32	.62	.40	1.63	.00	4.10
HAND WEED CONTROL	7	.00	.00	.00	.00	8.20	.00	.00	9.20
CULT + POST LATE	7	.74	.38	.32	.62	.40	6.76	.00	9.22
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS GROUND X2	7	.00	.00	1.26	.95	.52	7.33	.00	10.05
APPLY INS AIR X3	8	.00	.00	.00	.00	.10	16.48	3.60	20.19
APPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
1ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
HAUL	10	.00	.00	.00	.00	.00	.00	8.75	8.75
2ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
HAUL	10	.00	.00	.00	.00	.00	.00	2.19	2.19
GIN	10	.00	.00	.00	.00	.00	.00	77.12	77.12
TOTAL SPECIFIED COSTS		14.40	7.36	29.13	46.81	33.96	80.66	112.02	324.23
INTEREST ON OPERATING CAPITAL									7.34
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									331.57

ABLE 18. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, MORE FFICIENT INPUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
PERATION ESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
UBSOILER 2 ROW	11	3.97	2.04	.38	.63	2.14	.00	.00	9.15
HISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
HISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.61
IELD CULT 21 FT	3	.64	.33	.21	.46	.34	.00	.00	1.99
ISK BED	4	.83	.43	.24	.40	.45	.00	.00	2.35
ISK BED + FERT	4	1.02	.53	.36	.60	.55	9.07	.00	12.14
OW CONDITION	5	1.15	.59	.63	1.21	.62	.00	.00	4.20
LANT + PRE	5	1.27	.65	.63	1.40	1.37	14.62	.00	19.94
RAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
ULTIVATE EARLY	5	1.35	.69	.28	.55	.72	.00	.00	3.60
PPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.28
ULT + POST EARLY	5	1.54	.79	.43	.84	.83	3.37	.00	7.80
ULT + POST EARLY	6	1.54	.79	.43	.84	.83	3.37	.00	7.80
AND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	6	1.15	.59	.33	.63	.62	.67	.00	4.00
ULT + POST LATE	6	1.15	.59	.33	.63	.62	.67	.00	4.00
AND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	7	1.15	.59	.33	.63	.62	4.53	.00	7.85
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
PPLY INS GROUND	7	.00	.00	.63	.48	.26	3.66	.00	5.03
PPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.03
PPLY INS AIR X2	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
PPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
AUL	10	.00	.00	.00	.00	.00	.00	8.99	8.99
ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
AUL	10	.00	.00	.00	.00	.00	.00	2.25	2.25
IN	10	.00	.00	.00	.00	.00	.00	79.20	79.20
OTAL SPECIFIED COSTS		20.68	10.58	28.47	45.68	32.88	67.16	113.20	318.65
TEREST ON OPERATING CAPITAL									7.26
OTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									325.91

TABLE 19. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, MOR EFFICIENT INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 197

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOT CO
		DOLLARS							
APPLY LIME 1X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.0
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.
SUBSOILER 2 ROW	11	3.97	2.04	.38	.63	2.14	.00	.00	9.1
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.
CHISEL PLOW 16 FT	3	1.41	.72	.22	.49	.76	.00	.00	3.
FIELD CULT 21 FT	3	.64	.33	.21	.46	.34	.00	.00	1.
DISK BED	4	.64	.33	.24	.40	.34	.00	.00	1.
DISK BED + FERT	4	.77	.39	.34	.59	.41	9.07	.00	11.5
ROW CONDITION	5	.69	.35	.56	1.09	.37	.00	.00	3.0
PLANT + PRE	5	.75	.39	.49	1.07	.41	14.62	.00	18.1
TRAILER	5	.10	.05	.06	.12	.55	.00	.00	.8
CULTIVATE EARLY	5	.92	.47	.32	.60	.49	.00	.00	2.8
APPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.2
CULT + POST EARLY	5	1.03	.53	.44	.86	.55	3.37	.00	6.7
CULT + POST EARLY	6	1.03	.53	.44	.86	.55	3.37	.00	6.7
HAND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.9
CULT + POST LATE	6	.74	.38	.32	.62	.40	.67	.00	3.1
CULT + POST LATE	6	.74	.38	.32	.62	.40	.67	.00	3.1
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.9
CULT + POST LATE	7	.74	.38	.32	.62	.40	4.53	.00	6.9
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.2
APPLY INS GROUND	7	.00	.00	.63	.48	.26	3.66	.00	5.0
APPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.0
APPLY INS AIR X2	8	.00	.00	.00	.00	.07	10.99	2.40	13.4
APPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.1
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.5
1ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.2
HAUL	10	.00	.00	.00	.00	.00	.00	8.99	8.9
2ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.0
HAUL	10	.00	.00	.00	.00	.00	.00	2.25	2.2
GIN	10	.00	.00	.00	.00	.00	.00	79.20	79.2
TOTAL SPECIFIED COSTS		16.57	8.47	28.27	45.26	30.40	67.16	113.20	309.3
INTEREST ON OPERATING CAPITAL									6.9
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									316.3

ABLE 20. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOIL, MITED SEEDBED PREPARATION, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 75.

		TRACTOR		EQUIPMENT					
PERATION ESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.06
TALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
UBSOILER 2 ROW	11	3.97	2.04	.38	.63	2.14	.00	.00	9.15
ISK BED	3	.83	.43	.24	.40	.45	.00	.00	2.35
ISK BED + FERT	4	1.02	.53	.36	.60	.55	9.07	.00	12.14
OW CONDITION	5	1.15	.59	.63	1.21	.62	.00	.00	4.20
LANT + PRE	5	1.27	.65	.83	1.40	1.37	13.39	.00	18.70
RAILER	5	.10	.05	.06	.12	.55	.00	.00	.88
ULTIVATE EARLY	5	1.35	.69	.28	.55	.72	.00	.00	3.60
PPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.28
ULT + POST EARLY	6	1.54	.79	.43	.84	.83	3.37	.00	7.80
ULT + POST EARLY	6	1.54	.79	.43	.84	.83	3.37	.00	7.80
AND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
ULT + POST LATE	6	1.15	.59	.33	.63	.62	.67	.00	4.00
ULT + POST LATE	7	1.15	.59	.33	.63	.62	.67	.00	4.00
AND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
PPLY INS GROUND	7	.00	.00	.63	.48	.26	3.66	.00	5.03
PPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.03
PPLY INS AIR X2	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
PPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
AUL	10	.00	.00	.00	.00	.00	.00	9.19	9.19
ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
AUL	10	.00	.00	.00	.00	.00	.00	2.29	2.29
IN	10	.00	.00	.00	.00	.00	.00	80.96	80.96
TAL SPECIFIED COSTS		16.06	8.21	27.48	43.60	30.40	61.40	115.21	302.36
TEREST ON OPERATING CAPITAL									6.61
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									308.97

TABLE 21. ESTIMATED COST PER ACRE, 2 x 1 COTTON, PLANTED BASIS, SANDY SOI LIMITED SEEDBED PREPARATION, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELT 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	14.06	14.0
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.4
SUBSOILER 2 ROW	11	3.97	2.04	.38	.63	2.14	.00	.00	9.1
DISK BED	3	.64	.33	.24	.40	.34	.00	.00	1.9
DISK BED + FERT	4	.77	.39	.34	.59	.41	9.07	.00	11.5
ROW CONDITION	5	.69	.35	.56	1.09	.37	.00	.00	3.0
PLANT + PRE	5	.75	.39	.49	1.07	.81	13.39	.00	16.9
TRAILER	5	.10	.05	.06	.12	.55	.00	.00	.8
CULTIVATE EARLY	5	.92	.47	.32	.60	.49	.00	.00	2.8
APPLY INS GROUND	5	.00	.00	.63	.48	.26	.92	.00	2.2
CULT + POST EARLY	6	1.03	.53	.44	.86	.55	3.37	.00	6.7
CULT + POST EARLY	6	1.03	.53	.44	.86	.55	3.37	.00	6.7
HAND WEED CONTROL	6	.00	.00	.00	.00	6.90	.00	.00	6.90
CULT + POST LATE	6	.74	.38	.32	.62	.40	.67	.00	3.14
CULT + POST LATE	7	.74	.38	.32	.62	.40	.67	.00	3.14
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS GROUND	7	.00	.00	.63	.48	.26	3.66	.00	5.03
APPLY INS GROUND	8	.00	.00	.63	.48	.26	3.66	.00	5.03
APPLY INS AIR X2	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
APPLY INS AIR X2	9	.00	.00	.00	.00	.07	7.69	2.40	10.16
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	3.93	1.65	5.58
1ST PICK 2 ROW	10	.00	.00	14.08	22.41	3.74	.00	.00	40.24
HAUL	10	.00	.00	.00	.00	.00	.00	9.19	9.19
2ND PICK 2 ROW	10	.00	.00	7.35	11.70	1.95	.00	.00	21.01
HAUL	10	.00	.00	.00	.00	.00	.00	2.29	2.29
GIN	10	.00	.00	.00	.00	.00	.00	80.96	80.96
TOTAL SPECIFIED COSTS		12.37	6.32	27.29	43.19	28.13	61.40	115.21	293.91
INTEREST ON OPERATING CAPITAL									6.35
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									300.26

BLE 22. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, HIGH IN- T PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
RATION CRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
LY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
LK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.62
SEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
SEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
LO CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
K HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
K + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
K HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
LO CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
K BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
K BED + FERT	4	.68	.35	.24	.40	.37	8.08	.00	10.13
CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
NT + PRE	5	.85	.43	.42	.93	.91	9.82	.00	13.36
ILER	5	.07	.03	.04	.08	.37	.00	.00	.59
TIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
LY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.05
T + POST EARLY	5	1.02	.53	.29	.56	.55	2.26	.00	5.21
T + POST EARLY	6	1.02	.53	.29	.56	.55	2.26	.00	5.21
O WEED CONTROL	6	.00	.00	.00	.00	6.16	.00	.00	6.16
T + POST LATE	6	.77	.39	.22	.42	.41	.45	.00	2.67
T + POST LATE	6	.77	.39	.22	.42	.41	.45	.00	2.67
O WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4.62
T + POST LATE	7	.77	.39	.22	.42	.41	6.76	.00	8.98
ECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
LY INS GROUND X2	7	.00	.00	.85	.64	.35	4.91	.00	6.74
LY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.37
LY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.36
LY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
OLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.95
L	10	.00	.00	.00	.00	.00	.00	6.02	6.02
PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.71
L	10	.00	.00	.00	.00	.00	.00	1.50	1.50
	10	.00	.00	.00	.00	.00	.00	52.96	52.96
L SPECIFIED COSTS		13.53	6.92	20.06	32.46	23.48	63.09	80.00	239.54
REST ON OPERATING CAPITAL									5.65
L SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									245.19

TABLE 23. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, HIGH I PUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TO C
		DOLLARS							
APPLY LIME 1X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9
STALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.
DISK BED + FERT	4	.51	.26	.23	.39	.28	8.08	.00	9.
ROW CONDITION	5	.46	.23	.37	.72	.25	.00	.00	2.
PLANT + PRE	5	.50	.26	.32	.72	.54	9.82	.00	12.
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.
CULTIVATE EARLY	5	.61	.31	.21	.40	.33	.00	.00	1.
APPLY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.
CULT + POST EARLY	5	.68	.35	.29	.57	.37	2.26	.00	4.
CULT + POST EARLY	6	.68	.35	.29	.57	.37	2.26	.00	4.
HAND WEED CONTROL	6	.00	.00	.00	.00	6.16	.00	.00	6.
CULT + POST LATE	6	.49	.25	.21	.41	.27	.45	.00	2.
CULT + POST LATE	6	.49	.25	.21	.41	.27	.45	.00	2.
HAND WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4.
CULT + POST LATE	7	.49	.25	.21	.41	.27	6.76	.00	8.
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLY INS GROUND X2	7	.00	.00	.85	.64	.35	4.91	.00	6.
APPLY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	9.43	13.01	2.51	.00	.00	26.
HAUL	10	.00	.00	.00	.00	.00	.00	6.02	6.
2ND PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.
HAUL	10	.00	.00	.00	.00	.00	.00	1.50	1.
GIN	10	.00	.00	.00	.00	.00	.00	52.96	52.
TOTAL SPECIFIED COSTS		10.78	5.51	19.92	32.17	21.81	63.09	80.00	233.
INTEREST ON OPERATING CAPITAL									5.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									238.

ABLE 24. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, USUAL IN- UT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

PERATION ESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
TALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.62
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
HISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
ISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	3.05	.00	6.15
ISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
IELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
ISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ISK BED + FERT	4	.68	.35	.24	.40	.37	6.76	.00	8.81
OW CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
LANT + PRE	5	.85	.43	.42	.93	.91	8.99	.00	12.53
RAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
ULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PPLY INS GROUND	5	.00	.00	.42	.32	.17	.62	.00	1.52
ULT + POST EARLY	5	1.02	.53	.29	.56	.55	.77	.00	3.73
ULT + POST EARLY	6	1.02	.53	.29	.56	.55	2.26	.00	5.21
AND WEED CONTROL	6	.00	.00	.00	.00	6.16	.00	.00	6.16
ULT + POST LATE	6	.77	.39	.22	.42	.41	2.26	.00	4.48
ULT + POST LATE	6	.77	.39	.22	.42	.41	1.09	.00	3.31
AND WEED CONTROL	7	.00	.00	.00	.00	6.16	.00	.00	6.16
ULT + POST LATE	7	.77	.39	.22	.42	.41	6.76	.00	8.98
NSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PPLY INS GROUND X2	7	.00	.00	.85	.64	.35	4.91	.00	6.74
PPLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
PPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
EFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
ST PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.95
AUL	10	.00	.00	.00	.00	.00	.00	5.83	5.83
ND PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.71
AUL	10	.00	.00	.00	.00	.00	.00	1.46	1.46
IN	10	.00	.00	.00	.00	.00	.00	51.44	51.44
TAL SPECIFIED COSTS		12.51	6.40	19.58	31.83	24.37	56.21	75.26	225.85
TEREST ON OPERATING CAPITAL									5.18
TAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									231.04

TABLE 25. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, USUAL I PUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA d MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.3
STALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.6
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.4
DISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	3.05	.00	6.1
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.1
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.3
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.3
DISK BED + FERT	4	.51	.26	.23	.39	.28	6.76	.00	8.4
ROW CONDITION	5	.46	.23	.37	.72	.25	.00	.00	2.0
PLANT + PRE	5	.50	.26	.32	.72	.54	8.99	.00	11.3
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.5
CULTIVATE EARLY	5	.61	.31	.21	.40	.33	.00	.00	1.8
APPLY INS GROUND	5	.00	.00	.42	.32	.17	.62	.00	1.5
CULT + POST EARLY	6	.68	.35	.29	.57	.37	.77	.00	3.0
CULT + POST EARLY	6	.68	.35	.29	.57	.37	2.26	.00	4.5
HAND WEED CONTROL	6	.00	.00	.00	.00	6.16	.00	.00	6.1
CULT + POST LATE	7	.49	.25	.21	.41	.27	2.26	.00	3.9
CULT + POST LATE	7	.49	.25	.21	.41	.27	1.09	.00	2.7
HAND WEED CONTROL	7	.00	.00	.00	.00	6.16	.00	.00	6.1
CULT + POST LATE	7	.49	.25	.21	.41	.27	6.76	.00	8.7
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.5
APPLY INS GROUND X2	7	.00	.00	.85	.64	.35	4.91	.00	6.7
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.4
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.7
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.95
HAUL	10	.00	.00	.00	.00	.00	.00	5.83	5.83
2ND PICK 2 ROW	10	.00	.00	4.40	7.64	1.28	.00	.00	13.71
HAUL	10	.00	.00	.00	.00	.00	.00	1.46	1.46
GIN	10	.00	.00	.00	.00	.00	.00	51.44	51.44
TOTAL SPECIFIED COSTS		9.76	4.99	19.44	31.24	22.71	56.21	75.26	219.59
INTEREST ON OPERATING CAPITAL									4.94
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									224.53

BLE 26. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, MORE EF-CIENT INPUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
ERATION SCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PLY LIME X1/A	11	.00	.00	.00	.00	.00	.00	9.38	9.38
ALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.62
BSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.10
ISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
ISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
ELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
SK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
SK BED + FERT	4	.68	.35	.24	.40	.37	6.10	.00	8.15
W CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
ANT + PRE	5	.85	.43	.42	.93	.91	9.82	.00	13.36
AILER	5	.07	.03	.04	.08	.37	.00	.00	.59
LTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PLY INS GROUND	5	.00	.00	.42	.32	.17	.62	.00	1.52
LT + POST EARLY	5	1.02	.53	.29	.56	.55	2.26	.00	5.21
LT + POST EARLY	6	1.02	.53	.29	.56	.55	2.26	.00	5.21
ND WEED CONTROL	6	.00	.00	.00	.00	4.62	.00	.00	4.62
LT + POST LATE	6	.77	.39	.22	.42	.41	.45	.00	2.67
LT + POST LATE	6	.77	.39	.22	.42	.41	.45	.00	2.67
ND WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4.62
LT + POST LATE	7	.77	.39	.22	.42	.41	4.53	.00	6.75
SECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PLY INS GROUND	7	.00	.00	.42	.32	.17	2.45	.00	3.36
PLY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.37
PLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
FOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.95
UL	10	.00	.00	.00	.00	.00	.00	5.99	5.99
D PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.71
UL	10	.00	.00	.00	.00	.00	.00	1.50	1.50
N	10	.00	.00	.00	.00	.00	.00	52.80	52.80
AL SPECIFIED COSTS		13.79	7.05	18.52	30.37	21.96	46.46	76.02	214.56
EREST ON OPERATING CAPITAL									4.90
AL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									219.47

TABLE 27. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, MORE FICIENT INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 197

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOT CO
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9.
STALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.
SUBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.
DISK BED + FERT	4	.51	.26	.23	.39	.28	6.10	.00	7.
ROW CONDITION	5	.46	.23	.37	.72	.25	.00	.00	2.0
PLANT + PRE	5	.50	.26	.32	.72	.54	9.82	.00	12.1
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.
CULTIVATE EARLY	5	.61	.31	.21	.40	.33	.00	.00	1.8
APPLY INS GROUND	5	.00	.00	.42	.32	.17	.62	.00	1.5
CULT + POST EARLY	5	.68	.35	.29	.57	.37	2.26	.00	4.5
CULT + POST EARLY	6	.68	.35	.29	.57	.37	2.26	.00	4.5
HAND WEED CONTROL	6	.00	.00	.00	.00	4.62	.00	.00	4.6
CULT + POST LATE	6	.49	.25	.21	.41	.27	.45	.00	2.0
CULT + POST LATE	6	.49	.25	.21	.41	.27	.45	.00	2.0
HAND WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4.6
CULT + POST LATE	7	.49	.25	.21	.41	.27	4.53	.00	6.1
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.5
APPLY INS GROUND	7	.00	.00	.42	.32	.17	2.45	.00	3.3
APPLY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.3
APPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.9
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.7
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.2
1ST PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.9
HAUL	10	.00	.00	.00	.00	.00	.00	5.99	5.9
2ND PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.7
HAUL	10	.00	.00	.00	.00	.00	.00	1.50	1.5
GIN	10	.00	.00	.00	.00	.00	.00	52.80	52.8
TOTAL SPECIFIED COSTS		11.04	5.64	18.79	30.08	28.29	46.46	76.02	208.3
INTEREST ON OPERATING CAPITAL									4.7
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									213.0

BLE 28. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED EDBED PREPARATION, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

ERATION SCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
PLY LIME XI/4	11	.00	.00	.00	.00	.00	.00	9.38	9.38
ILK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1.62
3SOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6.10
SK BED	3	.56	.28	.16	.27	.30	.00	.00	1.57
SK BED + FERT	4	.68	.35	.24	.40	.37	6.10	.00	8.15
CONDITION	5	.77	.39	.42	.80	.41	.00	.00	2.80
INT + PRE	5	.85	.43	.42	.93	.41	8.99	.00	12.53
AILER	5	.07	.03	.04	.08	.37	.00	.00	.59
LTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PLY INS GROUND	5	.00	.00	.42	.32	.17	.62	.00	1.52
LT + POST EARLY	6	1.02	.53	.29	.56	.55	2.26	.00	5.21
LT + POST EARLY	6	1.02	.53	.29	.56	.55	2.26	.00	5.21
ND WEED CONTROL	6	.00	.00	.00	.00	4.62	.00	.00	4.62
LT + POST LATE	6	.77	.39	.22	.42	.41	.45	.00	2.67
LT + POST LATE	7	.77	.39	.22	.42	.41	.45	.00	2.67
ND WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4.62
SECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PLY INS GROUND	7	.00	.00	.42	.32	.17	2.45	.00	3.37
PLY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.37
PLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
FOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.95
UL	10	.00	.00	.00	.00	.00	.00	6.13	6.13
PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.71
UL	10	.00	.00	.00	.00	.00	.00	1.53	1.53
N	10	.00	.00	.00	.00	.00	.00	54.00	54.00
AL SPECIFIED COSTS		10.71	5.48	18.27	28.98	20.30	41.11	77.39	202.23
EREST ON OPERATING CAPITAL									4.42
AL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									206.66

TABLE 29. ESTIMATED COST PER ACRE, 2 x 1 COTTON, LAND BASIS, SANDY SOIL, LIMI SEEDBED PREPARATION, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	T
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	9.38	9
STALK SHREDDER 2 ROW	11	.66	.32	.03	.13	.46	.00	.00	1
SUBSOILER 2 ROW	11	2.65	1.36	.25	.42	1.43	.00	.00	6
DISK BED	3	.43	.22	.16	.27	.73	.00	.00	1
DISK BED + FERT	4	.51	.26	.23	.39	.28	6.10	.00	7
ROW CONDITION	5	.46	.23	.37	.72	.25	.00	.00	2
PLANT + PRE	5	.50	.26	.32	.72	.54	8.99	.00	11
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	
CULTIVATE EARLY	5	.61	.31	.21	.40	.33	.00	.00	1
APPLY INS GROUND	5	.00	.00	.30	.23	.12	.85	.00	1
CULT + POST EARLY	6	.68	.35	.29	.57	.37	2.26	.00	4
CULT + POST EARLY	6	.68	.35	.29	.57	.37	2.26	.00	4
HAND WEED CONTROL	6	.00	.00	.00	.00	4.62	.00	.00	4
CULT + POST LATE	6	.49	.25	.21	.41	.27	.45	.00	2
CULT + POST LATE	7	.49	.25	.21	.41	.27	.45	.00	2
HAND WEED CONTROL	7	.00	.00	.00	.00	4.62	.00	.00	4
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLY INS GROUND	7	.00	.00	.42	.32	.17	2.45	.00	3.
APPLY INS GROUND	8	.00	.00	.42	.32	.17	2.45	.00	3.
APPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	9.43	15.01	2.51	.00	.00	26.
HAUL	10	.00	.00	.00	.00	.00	.00	6.13	6.
2ND PICK 2 ROW	10	.00	.00	4.80	7.64	1.28	.00	.00	13.
HAUL	10	.00	.00	.00	.00	.00	.00	1.53	1.
GIN	10	.00	.00	.00	.00	.00	.00	54.00	54.
TOTAL SPECIFIED COSTS		8.24	4.21	18.02	28.61	18.74	41.35	77.39	196.
INTEREST ON OPERATING CAPITAL									4.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									200.

BLE 30. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, HIGH INPUT PRAC-CES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
RATION CRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
ILK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
K HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
K HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
K + INCOR 21 FT	3	.77	.39	.56	.96	.41	6.10	.00	9.20
LD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
K BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ED	4	.56	.28	.16	.27	.30	.00	.00	1.57
LY FERT SPIN SPR	4	.43	.22	.07	.12	.23	17.96	.00	19.03
CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
NT + PRE	5	.85	.43	.42	.93	.91	15.82	.00	19.36
ILER	5	.07	.03	.04	.08	.37	.00	.00	.59
TIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
LY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.05
T + POST EARLY	5	1.02	.53	.29	.56	.55	3.37	.00	6.32
T + POST EARLY	6	1.02	.53	.29	.56	.55	3.37	.00	6.32
LY FERT SPIN SPR	6	.43	.22	.07	.12	.23	17.96	.00	19.03
D WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
T + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
T + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
TIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
D WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
ECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
LY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
LY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
LY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.36
LY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
OLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
L	10	.00	.00	.00	.00	.00	.00	4.99	4.99
PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
L	10	.00	.00	.00	.00	.00	.00	1.25	1.25
	10	.00	.00	.00	.00	.00	.00	44.00	44.00
L SPECIFIED COSTS		11.98	6.12	26.20	41.91	29.79	99.52	60.39	275.91
REST ON OPERATING CAPITAL									6.52
L SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									282.44

TABLE 31. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, HIGH INPUT PRA TICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.4
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.1
DISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	6.10	.00	9.2
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.3
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.3
REBED	4	.43	.22	.16	.27	.23	.00	.00	1.3
APPLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	17.96	.00	19.0
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.2
PLANT + PRE	5	.56	.29	.36	.80	.61	15.82	.00	18.4
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.5
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.0
APPLY MSMA AIR X2	5	.00	.00	.00	.00	.09	4.96	3.00	8.0
CULT + POST EARLY	5	.77	.39	.33	.64	.41	3.37	.00	5.9
CULT + POST EARLY	6	.77	.39	.33	.64	.41	3.37	.00	5.9
APPLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	17.96	.00	19.0
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.2
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.5
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.5
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.3
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.9
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.5
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.2
APPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.6
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	9.89	2.40	12.3
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.7
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.2
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.0
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.9
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.4
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.2
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.0
TOTAL SPECIFIED COSTS		9.99	5.10	26.41	42.27	88.57	99.52	60.39	272.2
INTEREST ON OPERATING CAPITAL									6.3
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									278.6

BLE 32. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, USUAL PRACTICES, 6 W EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
RATION SCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
LK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
SK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
SK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
SK + INCOR 21 FT	3	.77	.39	.56	.96	.41	6.10	.00	9.20
ELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
SK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
PLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	17.96	.00	19.03
W CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
ANT + PRE	5	.85	.43	.42	.93	.91	15.82	.00	19.36
AILER	5	.07	.03	.04	.08	.37	.00	.00	.59
LTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
LT + POST EARLY	5	1.02	.53	.29	.56	.55	1.15	.00	4.11
LT + POST EARLY	6	1.02	.53	.29	.56	.55	1.15	.00	4.11
PLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	17.96	.00	19.03
ND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
LTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
ND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
SECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.80	1.80
PLY INS GROUND X2	7	.00	.00	.90	.68	.37	7.33	.00	9.27
PLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.46
PLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
FOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
T PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
UL	10	.00	.00	.00	.00	.00	.00	4.59	4.59
D PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
UL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
N	10	.00	.00	.00	.00	.00	.00	44.00	44.00
AL SPECIFIED COSTS		11.98	6.12	26.20	41.91	29.70	88.48	57.39	261.78
EREST ON OPERATING CAPITAL									5.97
AL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									267.75

TABLE 33. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, USUAL PRACTICES ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOT CO
		DOLLARS							
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.
DISK + INCOR 21 FT	3	.77	.39	.56	.96	.41	6.10	.00	9.
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.
REBED	4	.43	.22	.16	.27	.23	.00	.00	1.
APPLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	17.96	.00	19.
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.
PLANT + PRE	5	.56	.29	.36	.80	.61	15.82	.00	18.
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.
APPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.
CULT + POST EARLY	5	.77	.39	.33	.64	.41	1.15	.00	3.
CULT + POST EARLY	6	.77	.39	.33	.64	.41	1.15	.00	3.
APPLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	17.96	.00	19.
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLY INS GROUND X2	7	.00	.00	.50	.68	.37	7.33	.00	9.
APPLY INS AIR X3	8	.00	.00	.00	.00	.07	10.99	2.40	13.
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.
2ND PICK 2 ROW	10	.00	.00	7.55	11.37	1.90	.00	.00	20.
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.
TOTAL SPECIFIED COSTS		9.99	5.10	26.41	42.27	28.47	88.48	57.39	258.
INTEREST ON OPERATING CAPITAL									5.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									263.

BLE 34. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, MORE EFFICIENT ACTICES, SPRING SEEDBED PREPARATION, 6 ROW EQUIPMENT, LOUISIANA - MISSSIPPI DELTA, 1975.

ERATION SCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
ALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
SK HARROW 21 FT	11	.60	.31	.34	.62	.32	.00	.00	2.19
SK BED	11	.56	.28	.16	.27	.30	.00	.00	1.57
BED	11	.56	.28	.16	.27	.30	.00	.00	1.57
LTIVATE BEDS	4	.60	.31	.13	.25	.32	.00	.00	1.61
LTIVATE BEDS	4	.60	.31	.13	.25	.32	.00	.00	1.61
PLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	12.86	.00	13.92
W CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
ANT + PRE	5	.85	.43	.42	.93	.91	19.20	.00	22.75
AILER	5	.07	.03	.04	.08	.37	.00	.00	.59
LTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
LT + POST EARLY	5	1.02	.53	.29	.56	.55	1.15	.00	4.11
LT + POST EARLY	6	1.02	.53	.29	.56	.55	1.15	.00	4.11
PLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	12.78	.00	13.85
ND WEED CONTROL	6	.00	.00	.00	.00	8.20	.00	.00	9.20
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
LTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
ND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
SECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.64
PLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
PLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
FOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
T PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
UL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
D PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
UL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
N	10	.00	.00	.00	.00	.00	.00	44.00	44.00
AL SPECIFIED COSTS		11.38	5.81	25.42	40.52	29.35	71.81	56.59	240.89
EREST ON OPERATING CAPITAL									5.17
AL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									246.06

TABLE 35. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, MORE EFFICIE PRACTICES, SPRING SEEDBED PREPARATION, 8 ROW EQUIPMENT, LOUISIANA - M SISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOT CO
		DOLLARS							
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.
DISK HARROW 21 FT	11	.60	.31	.34	.62	.32	.00	.00	2.
DISK BED	11	.43	.22	.16	.27	.23	.00	.00	1.
REBED	11	.43	.22	.16	.27	.23	.00	.00	1.
CULTIVATE BEDS	4	.43	.22	.15	.28	.23	.00	.00	1.
CULTIVATE BEDS	4	.43	.22	.15	.28	.23	.00	.00	1.
APPLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	12.86	.00	13.
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.
PLANT + PRE	5	.56	.29	.36	.80	.61	19.20	.00	21.
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.
APPLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.
CULT + POST EARLY	5	.77	.39	.33	.64	.41	1.15	.00	3.
CULT + POST EARLY	6	.77	.39	.33	.64	.41	1.15	.00	3.
APPLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	12.78	.00	13.
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.
APPLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.
APPLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.
2ND PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.
TOTAL SPECIFIED COSTS		9.05	4.61	25.67	40.94	27.94	71.81	56.59	236.
INTEREST ON OPERATING CAPITAL									5.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									241.

BLE 36. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, MORE EFFICIENT :ACTICES, FALL SEEDBED PREPARATION, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI :LTA, 1975.

ERATION SCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
ALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2.41
SK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
SK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
ELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1.33
SK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
PLY FERT SPIN SPR	4	.43	.22	.07	.12	.23	12.86	.00	13.92
W CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
ANT + PRE	5	.85	.43	.42	.93	.91	19.20	.00	22.75
AILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
PLY INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.89
LT + POST EARLY	5	1.02	.53	.29	.56	.55	1.15	.00	4.11
LT + POST EARLY	6	1.02	.53	.29	.56	.55	1.15	.00	4.11
PLY FERT SPIN SPR	6	.43	.22	.07	.12	.23	12.78	.00	13.85
NO WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.20
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
LT + POST LATE	6	.77	.39	.22	.42	.41	.67	.00	2.89
CTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
NO WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.90
SECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
PLY INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.64
PLY INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.64
PLY INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.97
PLY INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.77
FOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
T PICK 2 ROW	10	.00	.00	13.67	21.76	3.63	.00	.00	39.06
UL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
D PICK 2 ROW	10	.00	.00	7.15	11.37	1.90	.00	.00	20.42
UL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
N	10	.00	.00	.00	.00	.00	.00	44.00	44.00
AL SPECIFIED COSTS		11.21	5.72	25.64	40.95	29.26	71.81	56.59	241.19
EREST ON OPERATING CAPITAL									5.07
AL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									246.26

TABLE 37. ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, MORE EFFICIE PRACTICES, FALL SEEDBED PREPARATION, 8 ROW EQUIPMENT, LOUISIANA - MISSISSI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TO C
		DOLLARS							
STALK SHREDDER 2 ROW	11	.99	.48	.05	.20	.69	.00	.00	2
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2
FIELD CULT 21 FT	3	.43	.22	.14	.31	.23	.00	.00	1
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.
REBED	4	.43	.22	.16	.27	.23	.00	.00	1.
APPLY FERT SPIN SPR	4	.43	.22	.07	1.12	.23	12.86	.00	13.
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.
PLANT + PRE	5	.56	.29	.36	.80	.61	19.20	.00	21.
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.
CULTIVATE EARLY	5	.68	.35	.24	.45	.37	.00	.00	2.
APPLW INS GROUND	5	.00	.00	.45	.34	.18	.92	.00	1.
CULT + POST EARLY	5	.77	.39	.33	.64	.41	1.15	.00	3.
CULT + POST EARLY	6	.77	.39	.33	.64	.41	1.15	.00	3.
APPLY FERT SPIN SPR	6	.43	.22	.07	1.12	.23	12.78	.00	13.
HAND WEED CONTROL	6	.00	.00	.00	.00	9.20	.00	.00	9.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULT + POST LATE	6	.56	.28	.24	.46	.30	.67	.00	2.
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.
HAND WEED CONTROL	7	.00	.00	.00	.00	6.90	.00	.00	6.
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLW INS GROUND	7	.00	.00	.45	.34	.18	3.66	.00	4.
APPLW INS GROUND	8	.00	.00	.45	.34	.18	3.66	.00	4.
APPLW INS AIR X2	8	.00	.00	.00	.00	.05	7.33	1.60	8.
APPLW INS AIR X2	9	.00	.00	.00	.00	.05	5.13	1.60	6.
DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	13.87	21.76	5.63	.00	.00	39.
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.
2ND PICK 2 ROW	10	.00	.00	7.75	11.37	1.90	.00	.00	20.
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.
TOTAL SPECIFIED COSTS		9.22	4.70	25.85	41.31	28.04	71.81	56.59	237.
INTEREST ON OPERATING CAPITAL									4.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									242.

ABLE 38. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, HIGH INPUT PRACTICES, ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
SUBSOILER 2 ROW X173	3	.87	.45	.08	.14	.47	.00	.00	2.01
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB GROUND	5	.26	.13	.45	.34	.18	3.24	.00	4.61
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		8.99	4.60	7.03	10.83	6.03	19.29	2.00	58.78
INTEREST ON OPERATING CAPITAL									1.76
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									60.54

ABLE 39. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, HIGH INPUT PRACTICES, ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
SUBSOILER 2 ROW X173	3	.87	.45	.08	.14	.47	.00	.00	2.01
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.31
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB GROUND	5	.26	.13	.45	.34	.18	3.24	.00	4.61
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		7.78	3.98	7.20	11.11	5.28	19.29	2.00	56.64
INTEREST ON OPERATING CAPITAL									1.69
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									58.34

TABLE 40. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRA TICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.76	1.76
TOTAL SPECIFIED COSTS		7.85	4.03	6.50	10.35	5.38	16.05	1.76	51.92
INTEREST ON OPERATING CAPITAL									1.49
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									53.41

TABLE 41. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	3.05	.00	6.15
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.31
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.76	1.76
TOTAL SPECIFIED COSTS		6.64	3.40	6.67	10.64	4.62	16.05	1.76	49.78
INTEREST ON OPERATING CAPITAL									1.42
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									51.20

BLE 42. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, MORE EFFICIENT PRAC- CES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
SUBSOILER 2 ROW X1/3	3	.87	.45	.08	.14	.47	.00	.00	2.01
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT + PRE	5	.85	.43	.42	.93	.91	16.77	.00	20.31
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		7.08	3.63	5.97	9.52	6.06	18.75	2.00	52.01
INTEREST ON OPERATING CAPITAL									1.50
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									53.51

BLE 43. ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, MORE EFFICIENT PRAC- CES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
SUBSOILER 2 ROW X1/3	3	.87	.45	.08	.14	.47	.00	.00	2.01
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.56	.29	.36	.80	.61	16.77	.00	19.39
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		5.90	3.03	6.10	9.71	4.27	18.75	2.00	49.76
INTEREST ON OPERATING CAPITAL									1.43
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									51.18

TABLE 44. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.56	.28	.16	.27	.30	.00	.00	1.57
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB AIR	6	.00	.00	.00	.00	.00	3.24	1.50	4.74
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
SPOT HERB-HAND LABOR	7	.00	.00	.00	.00	1.15	.70	.00	1.85
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.92	1.92
TOTAL SPECIFIED COSTS		8.11	4.16	7.03	11.26	6.67	23.04	3.42	63.68
INTEREST ON OPERATING CAPITAL									1.94
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									65.62

TABLE 45. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	3	.94	.48	.15	.33	.51	.00	.00	2.41
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	4	.43	.22	.16	.27	.23	.00	.00	1.31
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB AIR	6	.00	.00	.00	.00	.00	3.24	1.50	4.74
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
SPOT HERB-HAND LABOR	7	.00	.00	.00	.00	1.15	.70	.00	1.85
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.92	1.92
TOTAL SPECIFIED COSTS		6.90	3.54	7.20	11.55	5.91	23.04	3.42	61.55
INTEREST ON OPERATING CAPITAL									1.87
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									63.42

ABLE 46. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.36	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB AIR	6	.00	.00	.00	.00	.00	3.24	1.50	4.74
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.84	1.84
TOTAL SPECIFIED COSTS		7.04	3.61	6.86	10.97	4.94	22.34	3.34	59.10
INTEREST ON OPERATING CAPITAL									1.78
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									60.88

ABLE 47. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.36	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
APPLY HERB AIR	6	.00	.00	.00	.00	.00	3.24	1.50	4.74
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.84	1.84
TOTAL SPECIFIED COSTS		5.96	3.05	7.03	11.26	4.25	22.34	3.34	57.23
INTEREST ON OPERATING CAPITAL									1.72
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									58.95

TABLE 48. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, MORE EFFICIENT PRA TICES, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		6.45	3.30	6.52	10.35	4.82	19.10	2.00	52.34
INTEREST ON OPERATING CAPITAL									1.53
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									53.86

TABLE 49. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, MORE EFFICIENT PRA TICES, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.00	2.00
TOTAL SPECIFIED COSTS		5.36	2.75	6.69	10.64	3.93	19.10	2.00	50.47
INTEREST ON OPERATING CAPITAL									1.46
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									51.93

ABLE 50. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, PLANTED BEHIND RICE, 6 OW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT	5	.66	.34	.30	.65	.71	11.02	.00	13.67
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULT + POST LATE	6	.77	.39	.22	.42	.41	1.98	.00	4.20
CULT + POST LATE	7	.77	.39	.22	.42	.41	3.38	.00	5.60
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.40	2.40
TOTAL SPECIFIED COSTS		7.38	3.79	7.15	11.45	5.12	22.48	2.40	59.77
INTEREST ON OPERATING CAPITAL									1.75
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									61.52

ABLE 51. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, PLANTED BEHIND RICE, 8 OW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
DISK + INCOR 21 FT	4	.77	.39	.56	.96	.41	6.10	.00	9.20
DISK HARROW 21 FT	3	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	4	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT	5	.47	.24	.29	.62	.51	11.02	.00	13.14
TRAILER	5	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULT + POST LATE	6	.56	.28	.24	.46	.30	1.98	.00	3.82
CULT + POST LATE	7	.56	.28	.24	.46	.30	3.38	.00	5.22
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	2.24	2.24
TOTAL SPECIFIED COSTS		6.26	3.21	7.32	11.75	4.42	22.48	2.24	57.67
INTEREST ON OPERATING CAPITAL									1.68
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									59.35

TABLE 52. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, PLANTED BEHIND WHEA 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
ROW CONDITION	6	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT + PRE	6	.77	.39	.38	.85	.83	14.79	.00	18.02
TRAILER	6	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	7	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
CULTIVATE LATE	7	.60	.31	.13	.25	.32	.00	.00	1.61
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.44	1.44
TOTAL SPECIFIED COSTS		5.36	2.75	6.22	9.79	4.09	14.79	1.44	44.45
INTEREST ON OPERATING CAPITAL									.99
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									45.44

TABLE 53. ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, PLANTED BEHIND WHEAT 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT					
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
ROW CONDITION	6	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	6	.51	.26	.33	.73	.55	14.79	.00	17.18
TRAILER	6	.07	.03	.03	.07	.30	.00	.00	.50
CULTIVATE EARLY	7	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
CULTIVATE LATE	7	.43	.22	.15	.28	.23	.00	.00	1.31
COMBINE 20 FT	10	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	10	.00	.00	.00	.00	.00	.00	1.44	1.44
TOTAL SPECIFIED COSTS		4.42	2.27	6.33	9.95	3.45	14.79	1.44	42.65
INTEREST ON OPERATING CAPITAL									.94
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									43.59

BLE 54. ESTIMATED COST PER ACRE, RICE BEHIND RICE, CLAY SOIL, HIGH INPUT PRAC-
ES, 110-120 DBHP TRACTOR, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK LEVEE	4	.17	.09	.05	.08	.09	.00	.00	.48
CHISEL PLOW 16 FT	4	.94	.48	.15	.33	.51	.00	.00	2.41
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
PIPE 30 FT	4	.43	.22	.03	.10	.23	.00	.00	1.01
PLANT-AIR	5	.00	.00	.00	.00	.16	23.22	2.70	26.08
DISK HARROW 21 FT	5	.60	.31	.34	.62	.32	.00	.00	2.19
SURVEY AND MARK	5	.40	.19	.00	.00	1.10	.00	.17	1.86
PULL LEVEE X3	5	.51	.26	.15	.24	.28	.00	.00	1.44
PULL + SEED LEVEE	5	.21	.11	.18	.38	.11	1.89	.00	2.89
BUTT LEVEE	5	.51	.26	.09	.23	.28	.00	.00	1.37
APP PROPANIL-AIR	5	.00	.00	.00	.00	.05	6.81	2.50	9.36
SET SPILLS	5	.00	.00	.00	.00	.55	.00	.00	.55
APP PROPANIL-AIR	5	.00	.00	.00	.00	.05	6.81	2.50	9.36
FLOOD-ADJ SPILLS	5	.00	.00	.00	.00	1.15	.00	.00	1.15
APP MOLINATE-AIR	5	.00	.00	.00	.00	.00	13.60	1.25	14.85
APP UREA-AIR	6	.00	.00	.00	.00	.05	10.26	2.67	12.98
APP 2,4,5-T AIR	6	.00	.00	.00	.00	.05	4.35	3.00	7.40
APP UREA-AIR	6	.00	.00	.00	.00	.05	10.26	2.67	12.98
TEND WATER(RICE MAN)	7	.00	.00	.00	.00	6.12	.00	.00	6.12
WATER COST	10	.00	.00	24.94	15.80	.00	.00	.00	40.74
DRAIN(RICE MAN)	8	.00	.00	.00	.00	.58	.00	.00	.58
COMBINE 16 FT	9	.00	.00	15.22	21.36	1.73	.00	.00	38.30
TOW TRACTOR	9	.00	.00	4.95	2.76	1.73	.00	.00	9.43
GRAIN CART	9	1.88	.96	.40	.76	1.01	.00	.00	5.01
HAUL	9	.00	.00	.00	.00	.00	.00	9.90	9.90
STORE - DRY	9	.00	.00	.00	.00	.00	.00	24.30	24.30
TURN - LOAD OUT	10	.00	.00	.00	.00	.00	.00	1.80	1.80
BURN	10	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		7.44	3.81	47.52	44.52	17.16	77.21	53.45	251.11
INTEREST ON OPERATING CAPITAL									8.97
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									260.08

TABLE 55. ESTIMATED COST PER ACRE, RICE BEHIND RICE, CLAY SOIL, USUAL INP PRACTICES, 110-120 DBHP TRACTOR, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK LEVEE	4	.17	.09	.05	.08	.09	.00	.00	.48
CHISEL PLOW 16 FT	4	.94	.48	.15	.33	.51	.00	.00	2.41
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
PIPE 30 FT	4	.43	.22	.03	.10	.23	.00	.00	1.01
PLANT 2 12 FT GR DR	5	.56	.28	.88	1.84	.58	18.92	.00	23.05
SURVEY AND MARK	5	.40	.19	.00	.00	1.10	.00	.17	1.86
PULL LEVEE X3	5	.51	.26	.15	.24	.28	.00	.00	1.44
PULL + SEED LEVEE	5	.21	.11	.18	.38	.11	1.89	.00	2.89
BUTT LEVEE	5	.51	.26	.09	.23	.28	.00	.00	1.37
APP PROPANIL-AIR	5	.00	.00	.00	.00	.05	9.08	2.50	11.63
SET SPILLS	5	.00	.00	.00	.00	.55	.00	.00	.55
FLOOD-ADJ SPILLS	5	.00	.00	.00	.00	1.15	.00	.00	1.15
APP UREA-AIR	6	.00	.00	.00	.00	.05	10.26	2.67	12.98
APP 2,4,5-T AIR	6	.00	.00	.00	.00	.05	4.35	3.00	7.40
APP UREA-AIR	6	.00	.00	.00	.00	.05	10.26	2.67	12.98
TEND WATER(RICE MAN)	7	.00	.00	.00	.00	6.12	.00	.00	6.12
WATER COST	10	.00	.00	24.94	15.80	.00	.00	.00	40.74
DRAIN(RICE MAN)	8	.00	.00	.00	.00	.58	.00	.00	.58
COMBINE 16 FT	9	.00	.00	15.22	21.36	1.73	.00	.00	38.30
TOW TRACTOR	9	.00	.00	4.95	2.76	1.73	.00	.00	9.43
GRAIN CART	9	1.88	.96	.40	.76	1.01	.00	.00	5.01
HAUL	9	.00	.00	.00	.00	.00	.00	11.00	11.00
STORE - DRY	9	.00	.00	.00	.00	.00	.00	27.00	27.00
TURN - LOAD OUT	10	.00	.00	.00	.00	.00	.00	2.00	2.00
BURN	10	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		7.40	3.78	48.06	45.74	17.20	54.77	51.00	227.96
INTEREST ON OPERATING CAPITAL									7.88
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									235.84

ABLE 56. ESTIMATED COST PER ACRE, WHEAT FOR GRAIN, CLAY SOIL, 110-120 DBHP RACTOR, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	9	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	9	.94	.48	.15	.33	.51	.00	.00	2.41
DISK HARROW 21 FT	9	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	10	.64	.33	.35	.67	.35	.00	.00	2.33
GRAIN DRILL 12 FT	10	1.13	.58	.48	1.01	1.21	11.68	.00	16.10
TRAILER	10	.07	.03	.04	.08	.37	.00	.00	.59
APPLY FERT AIR	3	.00	.00	.00	.00	.05	20.37	5.08	25.50
COMBINE 20 FT	6	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	6	.00	.00	.00	.00	.00	.00	2.80	2.80
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		4.40	2.25	5.83	9.11	3.91	32.05	7.88	65.43
INTEREST ON OPERATING CAPITAL									2.22
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									67.65

ABLE 57. ESTIMATED COST PER ACRE, FALLOW, ALL SOILS, 110-120 DBHP TRACTOR, OUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	6	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	7	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	7	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	8	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	8	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	9	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	9	.94	.48	.15	.33	.51	.00	.00	2.41
DISK HARROW 21 FT	9	.60	.31	.34	.62	.32	.00	.00	2.19
TOTAL SPECIFIED COSTS		5.47	2.80	2.34	4.38	2.94	.00	.00	17.93
INTEREST ON OPERATING CAPITAL									1.45
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									19.38

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CHARACTERISTIC OVERFLOW OR DIVIDE FAULT AT ADDRESS     015511
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TABLE 58. ESTIMATED COST PER ACRE, CORN FOR GRAIN, SANDY SOIL, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	10	.60	.31	.34	.62	.32	.00	.00	2.19
SUBSOILER 2 ROW	10	2.65	1.36	.25	.42	1.43	.00	.00	6.10
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
SPIN SPREADER	11	.43	.22	.07	.12	.23	16.07	.00	17.14
DISK BED	11	.56	.28	.16	.27	.30	.00	.00	1.57
DISK BED + FERT	3	.68	.35	.24	.40	.37	12.04	.00	14.09
ROW CONDITION	4	.77	.39	.42	.80	.41	.00	.00	2.80
PLANT + PRE	4	.85	.43	.42	.93	.91	10.17	.00	13.71
TRAILER	4	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	4	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	4	.60	.31	.13	.25	.32	.00	.00	1.61
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
COMBINE + ROW	9	1.92	.99	8.05	11.09	1.03	.00	.00	23.08
HAUL	9	.00	.00	.00	.00	.00	.00	5.10	5.10
DRY AND STORE	9	.00	.00	.00	.00	.00	.00	21.25	21.25
TOTAL SPECIFIED COSTS		12.31	6.31	17.01	26.23	12.25	38.29	26.35	138.75
INTEREST ON OPERATING CAPITAL									4.41
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									143.16

TABLE 59. ESTIMATED COST PER ACRE, CORN FOR GRAIN, SANDY SOIL, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	10	.60	.31	.34	.62	.32	.00	.00	2.19
SUBSOILER 2 ROW	10	2.65	1.36	.25	.42	1.43	.00	.00	6.10
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
SPIN SPREADER	11	.43	.22	.07	.12	.23	16.07	.00	17.14
DISK BED	11	.43	.22	.16	.27	.23	.00	.00	1.31
DISK BED + FERT	3	.68	.35	.24	.40	.37	12.04	.00	14.09
ROW CONDITION	4	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	4	.56	.29	.36	.80	.61	10.17	.00	12.79
TRAILER	4	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	4	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	4	.43	.22	.15	.28	.23	.00	.00	1.31
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
COMBINE + ROW	9	1.92	.99	8.05	11.09	1.03	.00	.00	23.08
HAUL	9	.00	.00	.00	.00	.00	.00	5.10	5.10
DRY AND STORE	9	.00	.00	.00	.00	.00	.00	21.25	21.25
TOTAL SPECIFIED COSTS		11.26	5.77	17.02	26.21	11.53	38.29	26.35	136.44
INTEREST ON OPERATING CAPITAL									4.32
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									140.77

TABLE 60. ESTIMATED COST PER ACRE, CORN FOR SILAGE, SANDY SOIL, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	10	.60	.31	.34	.62	.32	.00	.00	2.19
SUBSOILER 2 ROW	10	2.65	1.36	.25	.42	1.43	.00	.00	6.10
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
SPIN SPREADER	11	.43	.22	.07	.12	.23	16.07	.00	17.14
DISK BED	11	.56	.28	.16	.27	.30	.00	.00	1.57
DISK BED + FERT	3	.68	.35	.24	.40	.37	12.04	.00	14.09
ROW CONDITION	4	.77	.39	.42	.80	.41	.00	.00	2.80
PLANT + PRE	4	.85	.43	.42	.93	.91	10.17	.00	13.71
TRAILER	4	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	4	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	4	.60	.31	.13	.25	.32	.00	.00	1.61
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
SILAGE HARVESTER 2R	8	4.01	2.06	5.13	4.65	2.16	.00	.00	18.01
FORAGE WAGON	8	6.20	3.03	4.14	11.64	4.32	.00	.00	29.33
FORAGE BLOWER	8	3.10	1.51	.56	1.91	2.16	.00	13.20	22.45
TOTAL SPECIFIED COSTS		23.71	11.93	18.79	33.34	19.86	38.29	13.20	159.11
INTEREST ON OPERATING CAPITAL									4.47
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									163.58

TABLE 61. ESTIMATED COST PER ACRE, CORN FOR SILAGE, SANDY SOIL, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 28 FT	10	.43	.22	.34	.62	.23	.00	.00	1.84
SUBSOILER 2 ROW	10	2.65	1.36	.25	.42	1.43	.00	.00	6.10
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
CHISEL PLOW 16 FT	10	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
SPIN SPREADER	11	.43	.22	.07	.12	.23	16.07	.00	17.14
DISK BED	11	.43	.22	.16	.27	.23	.00	.00	1.31
DISK BED + FERT	3	.68	.35	.24	.40	.37	12.04	.00	14.09
ROW CONDITION	4	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	4	.56	.29	.36	.80	.61	10.17	.00	12.79
TRAILER	4	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	4	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	4	.43	.22	.15	.28	.23	.00	.00	1.31
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
SILAGE HARVESTER 2R	8	4.01	2.06	5.13	4.65	2.16	.00	.00	18.01
FORAGE WAGON	8	6.20	3.03	4.14	11.64	4.32	.00	.00	29.33
FORAGE BLOWER	8	3.10	1.51	.56	1.91	2.16	.00	13.20	22.45
TOTAL SPECIFIED COSTS		22.49	11.30	18.80	33.32	19.05	38.29	13.20	156.46
INTEREST ON OPERATING CAPITAL									4.36
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									160.81

TABLE 62. ESTIMATED COST PER ACRE, GRAIN SORGHUM FOR GRAIN, CLAY SOIL, 6 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.56	.28	.16	.27	.30	.00	.00	1.57
SPIN SPREADER	5	.43	.22	.07	.12	.23	28.71	.00	29.78
REBED	5	.56	.28	.16	.27	.30	.00	.00	1.57
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT + PRE	5	.77	.39	.38	.85	.83	7.21	.00	10.43
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	4.35	.00	6.30
COMBINE 20 FT	9	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	9	.00	.00	.00	.00	.00	.00	2.64	2.64
DRY AND STORE	9	.00	.00	.00	.00	.00	.00	14.85	14.85
TOTAL SPECIFIED COSTS		7.67	3.93	7.47	11.16	5.77	40.27	17.49	93.76
INTEREST ON OPERATING CAPITAL									2.15
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									95.91

TABLE 63. ESTIMATED COST PER ACRE, GRAIN SORGHUM FOR GRAIN, CLAY SOIL, 8 ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

		TRACTOR		EQUIPMENT					
OPERATION DESCRIPTION	MONTH	DIRECT COST	FIXED COST	DIRECT COST	FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
					DOLLARS				
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.43	.22	.16	.27	.23	.00	.00	1.31
SPIN SPREADER	5	.43	.22	.07	.12	.23	28.71	.00	29.78
REBED	5	.43	.22	.16	.27	.23	.00	.00	1.31
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.51	.26	.33	.73	.55	7.21	.00	9.59
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	4.35	.00	6.30
COMBINE 20 FT	9	.00	.00	3.99	5.47	.53	.00	.00	9.99
HAUL	9	.00	.00	.00	.00	.00	.00	2.64	2.64
DRY AND STORE	9	.00	.00	.00	.00	.00	.00	14.85	14.85
TOTAL SPECIFIED COSTS		6.47	3.32	7.58	11.32	4.99	40.27	17.49	91.44
INTEREST ON OPERATING CAPITAL									2.09
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									93.53

ABLE 64. ESTIMATED COST PER ACRE, GRAIN SORGHUM FOR SILAGE, ALL SOILS, 6 ROW QUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT		LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST				
		DOLLARS							
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.56	.28	.16	.27	.30	.00	.00	1.57
REBED + FERT	5	.68	.35	.24	.40	.37	28.71	.00	30.75
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT + PRE	5	.77	.39	.38	.85	.83	7.21	.00	10.43
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	6	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	4.35	.00	6.30
SILAGE HARVESTER 2R	8	2.82	1.45	3.60	3.27	1.52	.00	.00	12.65
FOR WAGON (2 - 1 TR)	8	2.18	1.06	1.94	5.45	1.52	.00	.00	12.15
FORAGE BLOWER	8	2.18	1.06	.39	1.34	1.52	.00	6.00	12.49
TOTAL SPECIFIED COSTS		14.54	7.35	9.42	15.76	8.64	40.27	6.00	102.98
INTEREST ON OPERATING CAPITAL									1.77
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									104.75

ABLE 65. ESTIMATED COST PER ACRE, GRAIN SORGHUM FOR SILAGE, CLAY SOIL, 8 ROW QUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR		EQUIPMENT		LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DIRECT COST	FIXED COST	DIRECT COST	FIXED COST				
		DOLLARS							
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.43	.22	.16	.27	.23	.00	.00	1.31
REBED + FERT	5	.51	.26	.23	.39	.28	28.71	.00	30.38
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.51	.26	.33	.73	.55	7.21	.00	9.59
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
APPLY INS GROUND X2	7	.00	.00	.90	.68	.37	4.35	.00	6.30
SILAGE HARVESTER 2R	8	2.82	1.45	3.60	3.27	1.52	.00	.00	12.65
FOR WAGON (2 - 1 TR)	8	2.18	1.06	1.94	5.45	1.52	.00	.00	12.15
FORAGE BLOWER	8	2.18	1.06	.39	1.34	1.52	.00	6.00	12.49
TOTAL SPECIFIED COSTS		13.30	6.71	9.52	15.91	8.83	40.27	6.00	100.55
INTEREST ON OPERATING CAPITAL									1.72
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									102.27

TABLE 66. ESTIMATED COST PER ACRE, HIGH CUT WHEAT FOR SILAGE, CLAY SOIL, 110-12 DBHP TRACTOR, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	9	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	9	.94	.48	.15	.33	.51	.00	.00	2.41
DISK HARROW 21 FT	10	.60	.31	.34	.62	.32	.00	.00	2.19
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
FIELD CULT 21 FT	10	.43	.22	.14	.31	.23	.00	.00	1.33
ROW CONDITION	10	.64	.33	.35	.67	.35	.00	.00	2.33
GRAIN DRILL 12 FT	10	1.13	.58	.48	1.01	1.21	11.68	.00	16.10
TRAILER	10	.07	.03	.04	.08	.37	.00	.00	.59
APPLY FERT AIR	3	.00	.00	.00	.00	.05	20.37	5.08	25.50
SILAGE HARVESTER 2R	5	2.82	1.45	3.55	3.21	1.52	.00	.00	12.54
FOR WAGON (2 - 1 TR)	5	2.18	1.06	1.94	5.45	1.52	.00	.00	12.15
FORAGE BLOWER	5	2.18	1.06	.39	1.34	1.52	.00	6.60	13.09
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		12.00	6.04	7.86	13.95	8.16	32.05	11.68	91.75
INTEREST ON OPERATING CAPITAL									2.06
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									93.80

TABLE 67. ESTIMATED COST PER ACRE, INTERMEDIATE SORGHUM SILAGE, CLAY SOIL, ROW EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.56	.28	.16	.27	.30	.00	.00	1.57
REBED + FERT	5	.68	.35	.24	.40	.37	28.71	.00	30.75
ROW CONDITION	5	.64	.33	.35	.67	.35	.00	.00	2.33
PLANT + PRE	5	.77	.39	.38	.85	.83	7.21	.00	10.43
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	5	.90	.46	.19	.37	.48	.00	.00	2.40
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
CULTIVATE LATE	6	.60	.31	.13	.25	.32	.00	.00	1.61
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
APPLY INS AIR X2	7	.00	.00	.00	.00	.00	4.35	1.60	5.95
SILAGE HARVESTER 2R	9	6.02	3.09	7.70	6.98	3.24	.00	.00	27.03
FORAGE WAGON	9	9.31	4.54	6.71	17.45	6.49	.00	.00	43.99
FORAGE BLOWER	9	4.65	2.27	.84	2.86	3.24	.00	20.90	34.77
TOTAL SPECIFIED COSTS		27.35	13.68	23.60	42.21	22.52	40.27	22.50	192.12
INTEREST ON OPERATING CAPITAL									2.81
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									194.93

BLE 68. ESTIMATED COST PER ACRE, INTERMEDIATE SORGHUM SILAGE, CLAY SOIL, 8 W EQUIPMENT, LOUISIANA - MISSISSIPPI DELTA, 1975.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
DISK HARROW 21 FT	4	.60	.31	.34	.62	.32	.00	.00	2.19
CHISEL PLOW 16 FT	5	.94	.48	.15	.33	.51	.00	.00	2.41
FIELD CULT 21 FT	5	.43	.22	.14	.31	.23	.00	.00	1.33
DISK BED	5	.43	.22	.16	.27	.23	.00	.00	1.31
REBED + FERT	5	.51	.26	.23	.39	.28	28.71	.00	30.38
ROW CONDITION	5	.51	.26	.42	.81	.28	.00	.00	2.28
PLANT + PRE	5	.51	.26	.33	.73	.55	7.21	.00	9.59
TRAILER	5	.07	.03	.04	.08	.37	.00	.00	.59
CULTIVATE EARLY	6	.68	.35	.24	.45	.37	.00	.00	2.09
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
CULTIVATE LATE	6	.43	.22	.15	.28	.23	.00	.00	1.31
IRRIGATE-GATED PIPE	6	.00	.00	6.26	9.90	4.83	.00	.00	20.99
APPLY INS AIR X2	7	.00	.00	.00	.00	.00	4.35	1.60	5.95
SILAGE HARVESTER 2R	9	6.02	3.09	7.70	6.98	3.24	.00	.00	27.03
FORAGE WAGON	9	9.31	4.54	6.21	17.45	6.49	.00	.00	43.99
FORAGE BLOWER	9	4.65	2.27	.84	2.86	3.24	.00	20.90	34.77
TOTAL SPECIFIED COSTS		26.11	13.04	23.70	42.36	21.71	40.27	22.50	189.69
INTEREST ON OPERATING CAPITAL									2.74
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									192.43

Table 69. Summary of estimated cost per acre for cotton, Louisiana - Mississippi Delta, 1975.

Crop description	Tractor		Equipment		Labor cost	Material cost	Misc cost	Total specified cost	Interest on operating capital	Total cost
	Direct cost	Fixed cost	Direct cost	Fixed cost						
Solid plant, sandy soil										
High input, 6-row	13.86	7.08	26.74	43.07	30.80	78.23	88.22	288.01	6.65	294.65
High input, 8-row	11.65	5.95	26.87	43.30	29.46	78.23	88.22	283.69	6.50	290.19
Usual input, 6-row	12.83	6.56	26.26	42.14	32.46	69.77	83.21	273.23	6.15	279.38
Usual input, 8-row	10.63	5.43	26.39	42.37	31.12	69.77	83.21	268.91	6.00	274.91
More efficient input, 6-row	14.11	7.21	25.61	40.98	28.52	59.63	84.24	260.32	5.99	266.31
More efficient input, 8-row	11.91	6.08	25.74	41.21	27.19	59.63	84.24	255.99	5.65	261.64
Limited seedbed prep, 6-row	11.04	5.64	24.95	39.59	26.87	53.87	85.79	247.75	5.29	253.04
Limited seedbed prep, 8-row	9.05	4.61	25.06	39.78	25.64	53.87	85.79	243.80	5.10	248.91
2 x 1 planted basis, sandy soil										
High input, 6-row	20.29	10.38	30.16	48.82	35.15	91.05	119.17	355.03	8.35	363.37
High input, 8-row	16.19	8.28	29.96	48.40	32.66	91.05	119.17	345.71	8.06	353.78
Usual input, 6-row	18.75	9.59	29.44	47.42	36.48	80.53	112.02	334.25	7.64	341.90
Usual input, 8-row	14.40	7.36	29.13	46.81	33.86	80.66	112.02	324.23	7.34	331.57
More efficient input, 6-row	20.68	10.58	28.47	45.68	32.88	67.16	113.20	318.65	7.26	325.91
More efficient input, 8-row	16.57	8.47	28.27	45.26	30.40	67.16	113.20	309.34	6.98	316.32
Limited seedbed prep, 6-row	16.06	8.21	27.48	43.60	30.40	61.40	115.21	302.36	6.61	308.97
Limited seedbed prep, 8-row	12.37	6.32	27.29	43.19	28.13	61.40	115.21	293.91	6.35	300.26
2 x 1 land basis, sandy soil										
High input, 6-row	13.53	6.92	20.06	32.46	23.48	63.09	80.00	239.54	5.65	245.19
High input, 8-row	10.78	5.51	19.92	32.17	21.81	63.09	80.00	233.28	5.46	238.74
Usual input, 6-row	12.51	6.40	19.58	31.53	24.37	56.21	75.26	225.85	5.18	231.04
Usual input, 8-row	9.76	4.99	19.44	31.24	22.71	56.21	75.26	219.59	4.94	224.53
More efficient input, 6-row	13.79	7.05	18.92	30.37	21.96	46.46	76.02	214.56	4.90	219.47
More efficient input, 8-row	11.04	5.64	18.79	30.08	20.29	46.46	76.02	208.32	4.71	213.03
Limited seedbed prep, 6-row	10.71	5.48	18.27	28.98	20.30	41.11	77.39	202.23	4.42	206.66
Limited seedbed prep, 8-row	8.24	4.21	18.02	28.61	18.74	41.35	77.39	196.54	4.32	200.86
Solid plant, clay soil										
High input, 6-row	11.98	6.12	26.20	41.91	29.79	99.52	60.39	275.91	6.52	282.44
High input, 8-row	9.99	5.10	26.41	42.27	28.57	99.52	60.39	272.24	6.39	278.64
Usual input, 6-row	11.98	6.12	26.20	41.91	29.70	88.48	57.39	261.78	5.97	267.75
Usual input, 8-row	9.99	5.10	26.41	42.27	28.47	88.48	57.39	258.11	5.85	263.96
More efficient input, 6-row (spring seedbed prep)	11.38	5.81	25.42	40.52	29.35	71.81	56.59	240.89	5.17	246.06
More efficient input, 8-row (spring seedbed prep)	9.05	4.61	25.67	40.94	27.94	71.81	56.59	236.62	5.00	241.62
More efficient input, 6-row (fall seedbed prep)	11.21	5.72	25.64	40.95	29.26	71.81	56.59	241.19	5.07	246.26
More efficient input, 8-row (fall seedbed prep)	9.22	4.70	25.85	41.31	28.04	71.81	56.59	237.52	4.94	242.46

Table 70. Summary of estimated cost per acre for soybeans, Louisiana - Mississippi Delta, 1975.

Crop description	Tractor		Equipment		Labor cost	Material cost	Misc cost	Total specified cost	Interest on operating capital	Total cost
	Direct cost	Fixed cost	Direct cost	Fixed cost						
Sandy soil										
High input, 6-row	8.99	4.60	7.03	10.83	6.03	19.29	2.00	58.78	1.76	60.54
High input, 8-row	7.78	3.98	7.20	11.11	5.28	19.29	2.00	56.64	1.69	58.34
Usual input, 6-row	7.85	4.03	6.50	10.35	5.38	16.05	1.76	51.92	1.49	53.41
Usual input, 8-row	6.64	3.40	6.67	10.64	4.62	16.05	1.76	49.78	1.42	51.20
More efficient input, 6-row	7.08	3.63	5.97	9.52	5.06	18.75	2.00	52.01	1.50	53.51
More efficient input, 8-row	5.90	3.03	6.10	9.71	4.27	18.75	2.00	49.76	1.43	51.18
Clay soil										
High input, 6-row	8.11	4.16	7.03	11.26	6.67	23.04	3.42	63.68	1.94	65.62
High input, 8-row	6.90	3.54	7.20	11.55	5.91	23.04	3.42	61.55	1.87	63.42
Usual input, 6-row	7.04	3.61	6.86	10.97	4.94	22.34	3.34	59.10	1.78	60.88
Usual input, 8-row	5.96	3.05	7.03	11.26	4.25	22.34	3.34	57.23	1.72	58.95
More efficient input, 6-row	6.45	3.30	6.52	10.35	4.62	19.10	2.00	52.34	1.53	53.86
More efficient input, 8-row	5.36	2.75	6.69	10.64	3.93	19.10	2.00	50.47	1.46	51.93
Following rice, 6-row	7.38	3.79	7.15	11.45	5.12	22.48	2.24	59.61	1.75	61.36
Following rice, 8-row	6.26	3.21	7.32	11.75	4.42	22.48	2.24	57.67	1.68	59.35
Following wheat, 6-row	5.36	2.75	6.22	9.79	4.09	14.79	1.44	44.45	.99	45.44
Following wheat, 8-row	4.42	2.27	6.33	9.95	3.45	14.79	1.44	42.65	.94	43.59

Table 71. Summary of estimated cost per acre for grain and forage crops, Louisiana - Mississippi Delta, 1975.

Crop description	Tractor		Equipment		Labor cost	Material cost	Misc cost	Total specified cost	Interest on operating capital	Total cost
	Direct cost	Fixed cost	Direct cost	Fixed cost						
Rice behind rice, clay soil										
High input	7.44	3.81	47.52	44.52	17.16	77.21	53.65	251.31	8.98	260.29
Usual input	7.40	3.78	48.06	45.74	17.20	54.77	51.00	227.96	7.88	235.84
Wheat for grain, clay soil	4.40	2.25	5.83	9.11	3.91	32.05	7.88	65.43	2.22	67.65
Fallow, all soils	5.47	2.80	2.34	4.34	2.94	0.00	0.00	17.93	1.45	19.38
Corn for grain, sandy soil										
6-row equipment	12.31	6.31	17.01	26.23	12.25	38.29	26.35	138.75	4.41	143.16
8-row equipment	11.26	5.77	17.02	26.21	11.53	38.29	26.35	136.44	4.32	140.77
Corn for silage, sandy soil										
6-row equipment	23.71	11.93	18.79	33.34	19.86	38.29	13.20	159.11	4.47	163.58
8-row equipment	22.49	11.30	18.80	33.32	19.05	38.29	13.20	156.46	4.36	160.81
Grain sorghum for grain, clay soil										
6-row equipment	7.67	3.93	7.47	11.16	5.77	40.27	17.49	93.76	2.15	95.91
8-row equipment	6.47	3.32	7.58	11.32	4.99	40.27	17.49	91.44	2.09	93.53
Grain sorghum for silage										
6-row equipment, all soils	14.54	7.35	9.42	15.76	9.64	40.27	6.00	102.98	1.77	104.75
8-row equipment, clay soils	13.30	6.71	9.52	15.91	8.83	40.27	6.00	100.55	1.72	102.27
High cut wheat for silage, clay soil	12.00	6.04	7.86	13.95	8.16	32.05	11.68	91.75	2.06	93.80
Intermediate sorghum silage, clay soil										
6-row equipment	27.35	13.68	23.60	42.21	22.52	40.27	22.50	192.12	2.81	194.93
8-row equipment	26.11	13.04	23.70	42.36	21.71	40.27	22.50	189.69	2.74	192.43

able 72. Estimated returns to land, management, and farm overhead per land acre for cotton grown on various soil types with different planting patterns, cultural practices, equipment sizes, prices, and yields, Louisiana-Mississippi Delta, 1975.

				Equipment size					
				6-row			8-row		
oil ype	Planting pattern	Cultural practices	Yield, lint/acre lb.	Lint price, ¢/lb.[1]			Lint price, ¢/lb.[1]		
				30	40	50	30	40	50
				Net returns, $/acre					
andy	Solid	High input	702	-52.24	45.21	142.66	-47.77	49.68	147.13
			752	-39.90	64.45	168.80	-35.44	68.91	173.26
			802	-27.57	83.68	194.93	-23.10	88.15	199.40
		Usual input	680	-44.46	49.89	144.24	-39.99	54.36	148.71
			730	-32.08	69.22	170.52	-27.61	73.69	174.99
			780	-19.72	88.50	196.73	-15.25	92.97	201.20
		More efficient	700	-24.61	72.51	169.64	-19.95	77.17	174.30
			750	-12.26	91.79	195.84	- 7.59	96.46	200.51
			800	.13	111.13	222.13	4.79	115.79	226.79
		Limited seedbed preparation	717	- 5.59	93.88	193.36	-1.46	98.01	197.49
			767	6.79	113.21	219.64	10.92	117.34	223.77
			817	19.15	132.50	245.85	23.28	136.63	249.98
	2 x 1	High input	612	-33.30	51.63	136.55	-26.85	58.08	143.00
			662	-20.94	70.91	162.76	-14.49	77.36	169.21
			712	- 8.56	90.24	189.04	- 2.11	96.69	195.49
		Usual input	593	-25.59	56.68	138.96	-19.09	63.19	145.46
			643	-13.21	76.01	165.24	- 6.71	82.52	171.74
			693	- .85	95.30	191.45	5.65	101.80	197.95
		More efficient	610	- 8.25	76.40	161.05	- 1.81	82.84	167.49
			660	4.11	95.68	187.26	10.54	102.12	193.69
			710	16.49	115.01	213.54	22.93	121.45	219.98
		Limited seedbed preparation	625	9.64	96.36	183.09	15.43	102.15	188.88
			675	21.99	115.64	209.29	27.79	121.44	215.09
			725	34.38	134.98	235.58	40.17	140.77	241.37
lay	Solid	High input	500	-108.49	-39.12	30.26	-104.70	-35.32	34.05
			550	- 96.11	-19.79	56.54	- 92.31	-15.99	60.34
			600	- 83.75	- .50	82.75	- 79.96	3.29	86.54
		Usual input	500	- 93.81	-24.44	44.94	- 90.01	-20.64	48.74
			550	- 81.43	- 5.10	71.22	- 77.63	- 1.31	75.02
			600	- 69.07	14.18	97.43	- 65.27	17.98	101.23
		More efficient spring seedbed preparation	500	- 72.11	- 2.74	66.64	- 67.67	1.70	71.08
			550	- 59.73	16.59	92.92	- 55.29	21.03	97.36
			600	- 47.37	35.88	119.13	- 42.93	40.32	123.57
		More efficeint fall seedbed preparation	500	- 72.31	- 2.94	66.44	- 68.51	.86	70.24
			550	- 59.93	16.39	92.72	- 56.13	20.19	96.52
			600	- 47.57	35.68	118.93	- 43.77	39.48	122.73

/Price of cottonseed was assumed to be $.025, $.050, and $.075 when lint prices were $.30, $.40, and .50 per lb., respectively.

Table 73. Estimated returns to land, management, and farm overhead per acre for soybeans grown on various soil types with different cultural practices, equipment sizes, prices, and yields, Louisiana-Mississippi Delta, 1975.

Soil type	Cultural practices	Yield, bu./ac.	Equipment size					
			6-row			8-row		
			Soybean price, $/bu.			Soybean price, $/bu.		
			3.50	6.50	9.50	3.50	6.50	9.50
			Net returns, $/acre					
Sandy	High input	18	3.02	57.02	111.02	5.22	59.22	113.22
		25	26.96	101.96	176.96	29.16	104.16	179.16
		35	61.16	166.16	271.16	63.36	168.36	273.36
	Usual input	15	- .35	44.65	89.65	1.86	46.86	91.86
		22	23.59	89.59	155.59	25.80	91.80	157.80
		30	50.95	140.95	230.95	53.16	143.16	233.16
	More efficient	18	10.05	64.05	118.05	12.38	66.38	120.38
		25	33.99	108.99	183.99	36.32	111.32	186.32
		35	68.19	173.19	278.19	70.52	175.52	280.52
Clay	High input	20	4.70	64.70	124.70	6.90	66.90	126.90
		24	18.38	90.38	162.38	20.58	92.58	164.58
		35	56.00	161.00	266.00	58.20	163.20	268.20
	Usual input	18	2.52	56.52	110.52	4.45	58.45	112.45
		23	19.62	88.62	157.62	21.55	90.55	159.55
		32	50.40	146.40	242.40	52.33	148.33	244.33
	More efficient	18	9.70	63.70	117.70	11.63	65.63	119.63
		25	33.64	108.64	183.64	35.77	110.57	185.57
		35	67.84	172.84	277.84	69.77	174.77	279.77
Clay	Following rice	20	9.28	69.28	129.28	11.29	71.29	131.29
		28	36.64	120.64	204.64	38.65	122.65	206.65
		40	77.68	197.68	317.68	79.69	199.69	319.69
	Following wheat	10	-9.80	20.20	50.20	-7.95	22.05	52.05
		18	17.56	71.56	125.56	19.41	73.41	127.41
		25	41.50	116.50	191.50	43.35	118.35	193.35

Table 74. Estimated returns to land, management, and farm overhead per acre for selected grain crops grown on various soil types with different cultural practices, equipment sizes, prices, and yields, Louisiana-Mississippi Delta, 1975.

Crop	Soil type	Cultural practices	Equipment size	Yield bu./ac.	Price levels[1/] Low	Expected	High
Rice	Clay	High input	110-120 DBHP tractor	75	-29.26	64.49	158.24
				90	9.71	122.21	234.71
				100	35.69	160.69	285.69
		Usual input	110-120 DBHP tractor	90	38.16	150.66	236.16
				100	64.16	189.16	314.16
				110	90.16	227.66	365.16
Wheat	Clay	Usual input	110-120 DBHP tractor	30	- 6.95	23.05	53.05
				40	12.35	52.35	92.35
				50	31.65	81.65	131.65
Corn	Sandy	Usual input	6-row	70	1.49	71.49	141.49
				85	26.84	111.84	196.84
				100	52.19	152.19	252.19
		Usual input	8-row	70	3.88	73.88	143.88
				85	29.23	114.23	199.23
				100	54.58	154.58	254.58
Grain sorghum	Clay	Usual input	6-row	54	1.68	49.68	97.68
				59	9.69	62.49	115.29
				68	23.04	83.84	144.64
		Usual input	8-row	54	4.06	52.06	100.06
				59	12.07	64.87	117.67
				68	25.42	86.22	147.02

[1/] Rice: $3.00, $4.25, and $5.50/bu. for low, expected, and high price levels, respectively.
Wheat: $2.00, $3.00, and $4.00/bu. for low, expected, and high price levels, respectively.
Corn: $2.00, $3.00, and $4.00/bu. for low, expected, and high price levels, respectively.
Grain sorghum: $1.79, $2.69, and $3.58/bu. for low, expected, and high price levels, respectively.

APPENDIX

Appendix Table 1. Estimated average number of days suitable for fieldwork on sandy soil, by months, Delta Area of Mississippi and Louisiana. [1]

Month	Estimated days suitable for fieldwork [2]			
	Mississippi		Louisiana	
	Tillage	Nontillage	Tillage	Nontillage
January	3.1	7.3	3.9	7.1
February	6.5	10.3	6.1	9.8
March	14.3	17.8	10.4	14.6
April	18.6	20.6	15.6	18.5
May	21.3	22.6	19.7	21.5
June	20.2	21.2	21.5	22.4
July	24.6	25.1	19.8	21.1
August	24.0	25.0	22.6	23.7
September	23.6	24.8	23.8	24.6
October	13.9	17.2	23.5	25.0
November	6.4	10.0	13.2	16.0
December	2.8	6.2	4.6	8.1

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[1] These estimates are upper limit values based on Stoneville, Mississippi and Tallulah, Louisiana weather data and computed using the techniques presented in [2].

[2] These estimates assume everyday as a potential workday, with no adjustment for Sundays and holidays. To make these adjustments, multiply value by 0.86 for any month without a holiday and by 0.83 for any month with one holiday.

Appendix Table 2. Estimated average number of days suitable for fieldwork on clay soil, by months, Delta Area of Mississippi and Louisiana. [1]

Month	Estimated days suitable for fieldwork [2]			
	Mississippi		Louisiana	
	Tillage	Nontillage	Tillage	Nontillage
January	1.5	3.1	2.6	4.3
February	3.9	5.7	3.5	5.7
March	8.6	12.1	6.8	9.0
April	14.8	17.3	12.1	13.8
May	19.5	21.2	18.3	19.3
June	19.8	20.8	21.4	22.0
July	24.6	25.1	20.1	20.7
August	24.5	25.1	22.9	23.4
September	23.6	24.3	24.3	24.7
October	13.7	16.2	24.2	24.7
November	4.2	7.1	14.0	15.3
December	1.2	2.7	4.4	5.8

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[1] These estimates are upper limit values based on Stoneville, Mississippi and Tallulah, Louisiana weather data and computed using the techniques presented in [2].

[2] These estimates assume everyday as a potential workday, with no adjustment for Sundays and holidays. To make these adjustments, multiply value by 0.86 for any month without a holiday and by 0.83 for any month with one holiday.

Appendix Table 3. Estimated days suitable for fieldwork on sandy soils by combination of months, Delta Area of Mississippi and Louisiana. [1]

	Estimated number of days [2]			
	Mississippi		Louisiana	
Period	Tillage	Nontillage	Tillage	Nontillage
January - March	23.9	35.4	20.1	31.5
February - April	39.4	48.7	31.9	42.9
March - May	54.3	61.0	45.7	54.6
April - June	60.1	64.4	56.7	62.4
May - July	66.1	68.9	61.0	65.0
June - August	68.8	71.3	63.9	67.2
July - September	72.2	74.9	66.2	69.4
August - October	61.5	66.9	69.9	73.3
September - November	44.0	52.0	60.4	65.6
October - December	23.0	33.5	41.3	49.1
November - January	12.6	23.8	21.0	31.2
December - February	26.6	23.8	13.9	25.0
December - March	12.5	41.4	24.4	39.6

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[1] These estimates are upper limit values based on Stoneville, Mississippi and Tallulah, Louisiana weather data and computed using the techniques presented in [2].

[2] Adjust for Sundays and holidays by multiplying values shown by 0.86, 0.85, 0.84, and 0.83 for periods with no holidays and one to three holidays, respectively.

Appendix Table 4. Estimated days suitable for fieldwork on clay soils by combination of months, Delta Area of Mississippi and Louisiana. [1]

	Estimated number of days [2]			
	Mississippi		Louisiana	
Period	Tillage	Nontillage	Tillage	Nontillage
January - March	14.0	20.9	9.3	12.9
February - April	27.4	35.1	18.2	22.4
March - May	43.0	50.5	33.2	37.2
April - June	54.1	59.2	48.6	51.8
May - July	63.9	67.2	57.7	59.8
June - August	68.9	71.0	62.7	64.4
July - September	72.7	74.5	65.8	67.3
August - October	61.7	65.6	69.9	71.3
September - November	41.5	47.6	60.4	62.4
October - December	18.9	26.0	39.9	42.4
November - January	6.9	13.0	17.3	20.6
December - February	6.5	11.3	6.6	10.1
December - March	14.9	23.2	12.2	17.1

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[1] These estimates are upper limit values based on Stoneville, Mississippi and Tallulah, Louisiana weather data and computed using the techniques presented in [2].

[2] Adjust for Sundays and holidays by multiplying values shown by 0.86, 0.85, 0.84, and 0.83 for periods with no holidays and one to three holidays, respectively.

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PREFACE

Data presented in this report were developed to support research by the Mississippi Agricultural and Forestry Experiment Station, the Louisiana Agricultural Experiment Station, and the Commodity Economics Division, Economic Research Service, USDA.

Although this information has been developed for use in the Mississippi Delta areas of Mississippi and Louisiana, it can be easily adapted for use in other areas. Admittedly, the information presented in this report will not fit every conceivable situation in the Delta. By using the general framework presented herein and the procedures suggested or implied in this report, enterprise budgets may be developed readily for other situations.

This report supersedes Mimeograph Report No. 30, "Budgets for Major Farm Enterprises in the Mississippi River Delta of Arkansas, Louisiana, and Mississippi" (3), and Bulletin 794, "Crop Budgets and Planning Data for Major Farm Enterprises in the Yazoo-Mississippi Delta", (4). Detailed information concerning specific input and prices used in this report may be found in (7), (8), and (9).

ACKNOWLEDGEMENTS

Special appreciation is extended to cooperating producers who provided the basic information on practices used in this study. The various tractor equipment dealers and other input dealers who provided information on currect and projected prices are also gratefully acknowledged.

Appreciation is extended to Floyd Fulgham, Agricultural Engineer, USDA, ARS, James H. Simpson, Associate Economist, Department of Agricultural Economics, Mississippi State University; W. I. Spurgeon, Agronomist, Delta Branch, Mississippi Agriculture and Forestry Experiment Station; Dr. Kenneth Wegenhoft and Lloyd Carville, Agricultural Economists, Louisiana Cooperative Extension Service; and Dr. Fred H. Wiegman, Department of Agricultural Economics, Louisiana State University; for their critical review of the manuscript.

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June 1975

ECONOMICS OF ALTERNATIVE USES OF STEEP HILL LAND IN THE YAZOO-LITTLE TALLAHATCHIE WATERSHED OF MISSISSIPPI, 1974

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OCT

In Cooperation with Y-LT Flood Prevention Project

Forest Service USDA

Foreword

This study was conducted under Cooperative Agreement No. 42 of the Mississippi Agricultural and Forestry Experiment Station and the United States Department of Agriculture, Forest Service, Y-LT Flood Prevention Project. The analysis is applicable for 1974 and was completed by personnel of the Department of Agricultural Economics. Much data including timber yields, prices and planting costs, were furnished by personnel of the Y-LT Flood Prevention Project, for which the authors are very appreciative. However, the authors are solely responsible for the contents of this publication.

J. G. D. and J. E. W.

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Economics of Alternative Uses of Steep Hill Land in the Yazoo-Little Tallahatchie Watershed of Mississippi, 1974

The Yazoo-Little Tallahatchie (Y-LT) Watershed, which includes all or part of 19 northwest Mississippi counties (Figure 1), is covered by the Y-LT flood prevention project. This project was initiated in 1936 as a soil erosion control and flood prevention project. A primary tool for accomplishing the goals of the project has been reforestation of steep, eroded lands in the watershed and more than 500,000 acres have been planted to Loblolly pine since 1948. Soil erosion caused by run-off of rainfall has been virtually eliminated in many parts of the watershed as a result of reforestation.

During the ten year period ending in 1972, approximately 125,000 acres of land in the Yazoo-Little Tallahatchie Watershed were cleared of woods and converted to other uses, primarily forage crops for beef cattle.[1] A high proportion of the land cleared is steep and subject to severe erosion. Data available from two counties in the watershed, Lafayette and Yalobusha, show that 68 percent of the land cleared from 1963 to 1971 was Soil Conservation Service Land Capability Class VI and VII. A survey taken in 1973 in Holmes and Panola counties revealed that 67 percent of land cleared on the 67 farms surveyed was classed by the owner as "not suited for row crops or small grains." The only practical alternative uses of non-row crop land would be cattle and timber.

Objectives

The purpose of this study was to estimate and compare costs and returns from timber and beef cattle in the Y-LT area. Specifically, the objectives were to:

1. Ascertain the extent of land clearing in the area, estimate clearing cost per acre and identify problems associated with converting forest land to pasture;
2. Estimate costs of establishing forage crops and costs and returns from producing beef cattle on cleared land;
3. Revise and update previous studies and expected returns from timber production; and
4. Compare the returns estimated in 2 and 3.

Scope and Procedure

The study was generally limited to steep hill land in the Y-LT Watershed---Land Class A and B. Land Class A included timber site indexes 80 and 90 (50 year base) and Land Class B included timber site indexes 60 and 70. Annual returns were estimated for both timber and beef cattle for the two land classes.

Data needed for determining the extent of land clearing were obtained from U. S. Forest Service Project Foresters. Clearing costs, type of land cleared, and forage-beef cattle productivity estimates were obtained from a survey of farmers in the area. To the maximum extent possible, the costs and returns budgets for beef production reflect the actual experience of beef producers in the area. Input prices used for budgeting returns from beef cattle production were basically May, 1974 prices charged at local farmer cooperatives. Product prices represent five-year average prices received by farmers at the Jackson, Mississippi market.

Data for the timber enterprise were largely furnished by Y-LT personnel. Timber yield data have been updated by Y-LT personnel to reflect the latest information available. The yields used in the study are reported in Appendix Tables 8-11. Alternative product prices and discount rates selected for the analysis were expected to cover any expected changes in the foreseeable future. The alternative establishment costs considered reflect benefits of all cost-share programs currently available to landowners in the area.[2]

[1] **Summary of land cleared in Y-LT counties, 1960-71, unpublished data, Office of Manager, Y-LT Flood Prevention Project, Oxford, Mississippi.**

[2] **These prices, costs and discount rates were selected in consultation with Y-LT personnel.**

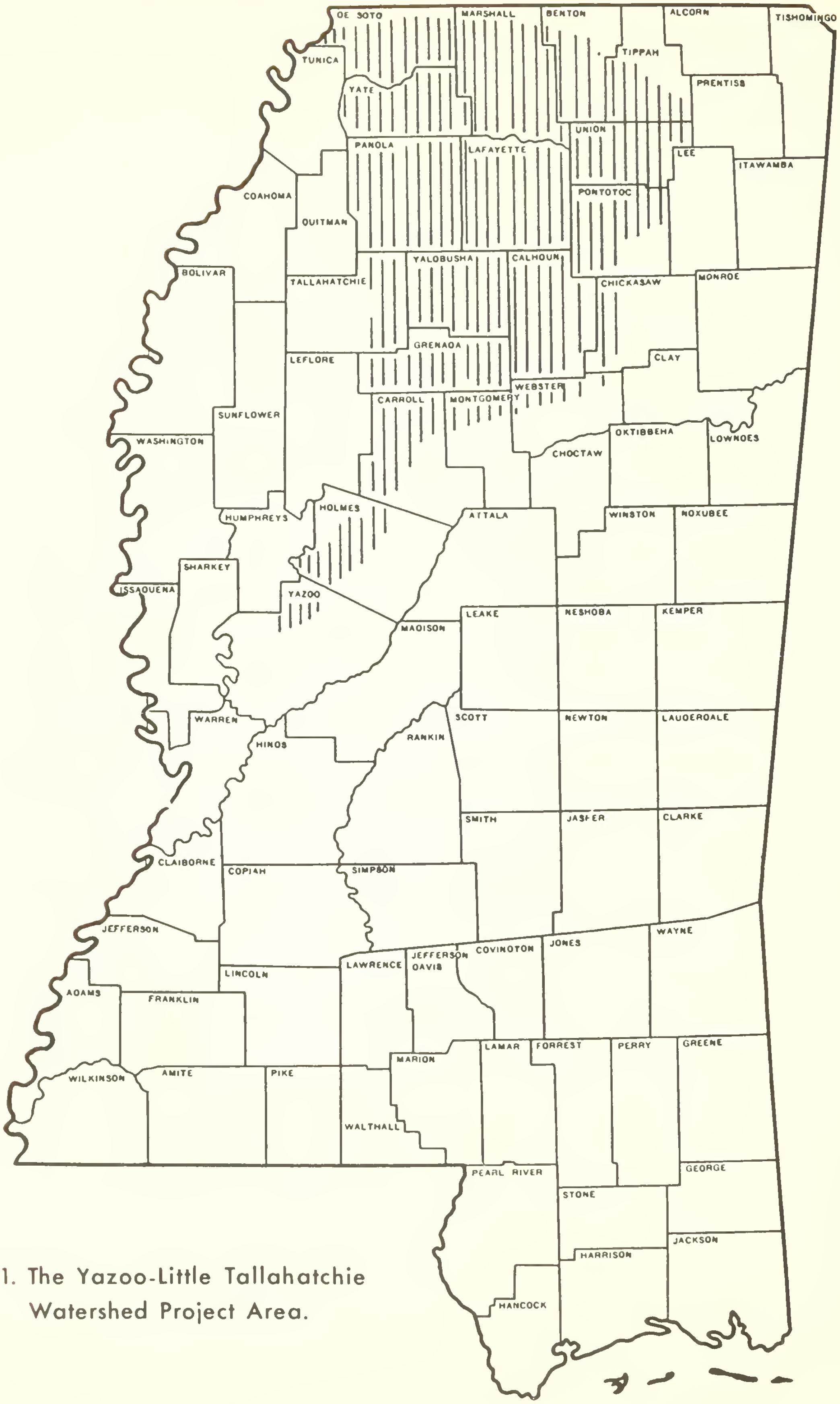
DE SOTO
MARSHALL
BENTON
ALCORN
TISHOMINGO
TUNICA
TIPPAH
PRENTISS
TATE
UNION
PANOLA
LAFAYETTE
LEE
ITAWAMBA
COAHOMA
PONTOTOC
QUITMAN
BOLIVAR
YALOBUSHA
CALHOUN
TALLAHATCHIE
CHICKASAW
MONROE
GRENADA
LEFLORE
CLAY
WEBSTER
CARROLL
MONTGOMERY
SUNFLOWER
WASHINGTON
OKTIBBEHA
CHOCTAW
LOWNDES
HOLMES
HUMPHREYS
ATTALA
WINSTON
NOXUBEE
SHARKEY
ISSAQUENA
YAZOO
MADISON
LEAKE
NESHOBA
KEMPER
WARREN
SCOTT
NEWTON
LAUDERDALE
HINDS
RANKIN
SMITH
JASPER
CLARKE
CLAIBORNE
COPIAH
SIMPSON
JEFFERSON
WAYNE
JONES
COVINGTON
JEFFERSON DAVIS
LAWRENCE
LINCOLN
ADAMS
FRANKLIN
LAMAR
FORREST
PERRY
GREENE
MARION
WILKINSON
AMITE
PIKE
WALTHALL
PEARL RIVER
GEORGE
STONE
JACKSON
HARRISON
HANCOCK

Figure 1. The Yazoo-Little Tallahatchie Watershed Project Area.

The distribution of land planted to trees in the Y-LT was estimated from Y-LT Watershed Project data reported in a previous study.[3] The estimated distribution is 7, 14, 33 and 46 percent, respectively, for timber site index 90, 80, 70 and 60. Thus, 21 percent of the land planted to trees in the area is Land Class A and 79 percent is Land Class B, as defined in this study. One third of the Class A land had a site index of 90 and the other two thirds was site index 80 land. Estimated returns from timber on site index 90 and site index 80 land were weighted according to this distribution to derive estimates of returns from Class A land. Estimates of returns from Class B land were derived in the same way, using weights of 42 percent for site index 70 and 58 percent for site index 60.

Results

Land Clearing. From 1960 until 1972 approximately 125,000 acres of upland in the Y-LT Watershed were cleared of woodland.[4] Nearly 17,000 acres of the land cleared were in pine timber. The landowners interviewed received an average of 4 dollars per acre for timber from land that was cleared. Thus, only a small percentage of land cleared in the watershed was in high-value timber production.

The 67 landowners surveyed had each cleared an average of 137 acres during the ten year period. The average age of trees on the land cleared was estimated by the landowners to be 20 years. Most of the land was cleared with a clearing blade, windrowed and burned. The reported cost for these operations averaged $64 per acre. This cost would be significantly higher in 1974.

Clearing upland for crop production in the Y-LT Watershed creates critical problems. Much of the land is very steep (15 - 20 percent slopes) and contains soils that are generally fine textured and subject to severe erosion. After clearing and some seedbed preparation, it is difficult to establish even close-growing permanent forages without severe soil erosion. Data obtained in the survey indicate that 20 to 30 percent of all land seeded to permanent type forages had to be reseeded, primarily because of sheet and gully erosion. These gullies were usually filled-in and the area reseeded, usually one year after initial seeding. This further increases costs and reduces net returns.

After land in the area is cleared and seeded to forage, production is not immediate. Farmers surveyed reported that permanent type forage would produce, on the average, only about 25 percent of its ultimate potential in the first

Table 1. Estimated Costs and Returns from Beef Production, per acre of Land Class A, Y-LT Watershed 1974.

Item	Unit	No. of Units	Price per Unit	Amount
Receipts[a]				
Weaned calves	Cwt.	1.11	$41.07	$45.59
Stocker calves	Cwt.	.72	36.74	26.45
Cull brood stock	Cwt.	.39	28.31	11.04
Total	Cwt.	2.22		$83.08
Costs				
Pasture[b]	Ac.	1.00	$41.91	$41.91
Hay[c]	Ton	.44	29.00	12.76
Supplemental feed	Cwt.	1.10	5.00	5.50
Vet. and medicine	Head	.38	6.30	2.39
Fence repair	Ac.	1.00	.67	.67
Marketing	Cwt.	2.22	1.50	3.33
Salt & minerals	Head	.38	.50	.19
General overhead	Ac.	1.00	1.75	1.75
Labor[d]	Hour	1.50	2.00	3.00
Capital[e]	Dol.	125.80	.08	10.08
Total				$81.58
Return to land and management				$ 1.50

[a] Receipts reflect a carrying capacity of 110 cows, 33 stocker calves and 4 bulls on 300 acres, and a calving rate of 88 percent.

[b] Represents a composite of mixed permanent pasture and winter grazing for stockers. Costs include cost for labor and interest on operating capital.

[c] Includes costs of feeding hay.

[d] Labor shown here is for care of herd only. Labor required for other jobs is included in items above.

[e] Capital costs include investment in animals and operating capital not included in items above.

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[3] Wayne C. Curtis and John E. Waldrop, *Income and Employment Effects of Farm Forestry Investments in the Yazoo-Little Tallahatchie Watershed of Mississippi: An Application of Input-Output Analysis,* AEc. Tech. Pub. No. 13, August 1971.

[4] Summary of land cleared in Y-LT counties, 1960-71, op. cit.

year after establishment. In the second year after establishment, the crop would produce approximately 75 percent of its full potential. Thus, more than two years are required for permanent type forage crops to reach full production. Then, over-grazing, particularly during periods of drought, results in damage to the stand and subsequently leaves bare areas of land that often erode into gullies.

Returns to Beef Cattle. Net returns from producing beef cattle were estimated for the two land classes identified above. Total receipts and costs were estimated for a 300 acre operation and converted to a per acre basis for Land Class A (Table 1.) and for Land Class B (Table 2.). The accounting of costs was done so that net returns could be calculated as "returns to land and management"---to make returns from beef cattle directly comparable to returns from planted timber.

Several assumptions were necessary for estimating costs and returns from a beef cattle operation. In addition to those given in the footnotes to Tables 1 and 2, it was assumed that a spring-calving program would be followed and that approximately one-third of calves weaned in the fall would be grazed on winter forage and sold as stockers. Calving rate, weaning weight, rate of grain, supplemental feed requirements and stocking rates on pastures were based on data obtained from farmers surveyed in the area.

Table 2. Estimated Costs and Returns from Beef Production, per acre of Land Class B, Y-LT Watershed, 1974.

Item	Unit	No. of Units	Price per Unit	Amount
Receipts				
Weaned calves	Cwt.	.98	$41.07	$40.25
Stocker calves	Cwt.	.65	36.74	23.88
Cull brood stock	Cwt.	.36	28.31	10.19
Total	Cwt.	1.99		$74.32
Costs				
Pasture	Ac.	1.00	$41.91	$41.91
Hay	Ton	.40	29.00	11.60
Supplemental feed	Cwt.	.98	5.00	4.90
Vet. and medicine	Head	.34	6.30	2.14
Fence repair	Ac.	1.00	.67	.67
Marketing	Cwt.	1.99	1.50	2.98
Salt & minerals	Head	.34	.50	.17
General overhead	Ac.	1.00	1.75	1.75
Labor	Hour	1.35	2.00	2.70
Capital	Dol.	113.45	.08	9.08
Total				$77.90
Return to land and management				-$3.58

Receipts reflect a carrying capacity of 98 cows, 30 stocker calves and 4 bulls on 300 acres, and a calving rate of 88 percent.

Represents a composite of mixed permanent pasture and winter grazing for stockers. Costs include cost for labor and interest on operating capital.

Includes costs of feeding hay.

Labor shown here is for care of herd only. Labor required for other jobs is included in items above.

Capital costs include investment in animals and operating capital not included in items above.

The estimated costs and returns reflect a *high level of management.* It was assumed that land cleared and planted to grass would be managed so that erosion would be minimized. Seedbed preparation, seeding rates and fertilizer rates used are those recommended for obtaining a good stand and rapid growth of grass.

The same pasture program, calving rates and management practices were assumed for both land classes. Thus, the difference in estimated returns reflects differences in productivity levels. The carrying capacities of pastures in the area were adjusted for differences in the productivity levels of the two land classes, with the assistance of Mississippi Agricultural and Forestry Experiment Station agronomists.[5]

A cow on Land Class A required 2.5 acres of permanent pasture; one cow on Land Class B permanent pasture required 2.8 acres. The two land classes were assumed to have equal carrying capacity for winter annual pasture.

Slightly more than 50 percent of costs is pasture costs. Estimated annual per acre cost for mixed bermuda-bahia-dallisgrass-lespedeza permanent pasture, and wheat-ryegrass winter annual pasture are given in Appendix Tables 1 and 2. Annual cost for permanent pasture includes *depreciation and interest on establishment cost* (Appendix Table 3.).

Returns to land and management were estimated to be $1.50 per acre for Land Class A (Table 1. and a negative $3.58 for Land

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[5] Dr. H. B. Vanderford and Dr. Vance Watson, Department of Agronomy, Mississippi State University.

Class B (Table 2.). Any sizable tract of hill land in the area would most likely contain a mixture of both land classes; thus, near zero return to land and management could be expected if the relationship of prices of inputs to prices of beef cattle remain about the same as that used in the analysis.

Returns to Planted Timber. The net returns resulting from planted timber were estimated under the following assumptions:

1. Landowners will attempt to maximize profits in allocating land resources.
2. Product prices and establishment costs used are appropriate for the entire period of the analysis. Actual prices are likely to change during the time period included, however, relative prices are likely to be more stable.
3. Thinning a stand on a periodic basis is a feasible approach to growing timber in the Y-LT Watershed.
4. Demand for timber products grown in the area will be adequate to clear the market at stated prices.

The analysis included many alternative combinations of product prices, establishment costs and discount rates. For purposes of comparing returns to land and management from growing timber with those from growing beef cattle, this report includes results from using one specific set of costs, one specific set of prices and one specified discount rate (Tables 3-6 and Appendix Tables 1-7). Establishment cost of $20 per acre, a pulpwood price of $8 per cord stumpage, a sawtimber price of $80 per thousand board feet stumpage and a discount rate of 8 percent were selected. Other costs, prices (for timber and beef cattle) and rates of discount can be easily substituted for those selected if desired.[6]

Annual equivalent net returns per acre to land and management were estimated to be $2.09 for site index 60 land, $3.91 for site index 70 land, $7.52 for site index 80 land, and $10.47 for site index 90 land. These estimated returns were appropriately weighted to provide return estimates for Land Classes A and B as follows:

NR_t Land Class A =
[(AE SI 80) (Percent SI 80)] +
[(AE SI 90) (Percent SI 90)][7]
where:
NR_t = annual equivalent net returns to land and management
AE = annual equivalent net return
SI = site index

NR_t Land Class B =
[(AE SI 60) (Percent SI 60)] +
[(AE SI 70) (Percent SI 70)][8]
where the symbols are as defined above.

Appropriate substitution yielded estimates of returns as follows:

NR_t Land Class A =
($7.52) (.67) + ($10.47) (.33)
= $8.50 per acre
NR_t Land Class B =
($2.09) (.58) + ($3.91) (.42)
= $2.85 per acre

The above returns assume that the land initially had no merchantable timber; i.e. it was "bare" land. Since timber stands may be removed before producing any revenue or stands may be liquidated before reaching economic maturity (before optimum rotation age), the annual equivalent returns to stands of selected ages were estimated. These estimates are presented in Table 7.[9] The estimated annual equivalents for the higher site indexes and older stands are quite high. These returns may be substituted into the equations and compared to those for beef cattle on comparable land. After a stand is clear cut (harvested) the appropriate expected returns are those for "bare" land; i.e., those reported in Tables 3-6.

Conclusions

An estimated 125,000 acres of woodland in the Yazoo-Little Tallahatchie Watershed have been cleared and allocated to other uses since 1960. Most of the cleared land has been planted to grass for beef production. The practice of clearing the relatively steep land and establishing pastures is not without problems. Because of its steepness and soil types, the land is subject to severe erosion. Often, pastures must be seeded more than once and sometimes require additional grading and land forming. Overgrazing, particularly during periods of drought, causes loss of stand and consequent erosion of soil.

Comparison of returns to a cow-calf operation with those expected from planted timber on these soils indicate that (1) returns to land and management are essentially zero

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[6] Net returns for alternative timber prices, cost and discount rates have been included since they are somewhat difficult to estimate. The reader may select an appropriate beef cattle price and estimate net returns from information provided in this report.

[7] Enter Percent as decimal.

[8] See footnote 7.

[9] The estimated returns are appropriate for owners of "bare" land in the Y-LT Watershed and owners with previously planted stands in the Y-LT. Owners of land that is not cleared would likely incur additional establishment costs.

for the cow-calf enterprise and (2) returns to land and management from planted timber are positive but very small. However, for timber stands that have been established for several years, returns to land and management were estimated to be substantially above those from beef cattle.

The results of this study fail to reveal an economic basis for changing land use from timber to cattle.

The comparison of returns from timber with returns from beef cattle was made for particular prices. These can be expected to change. Estimates for specific cost and price situations for timber production have been included in the report. The changes in net returns in response to change in prices of beef cattle can easily be estimated from the information included in the report.

Table 3. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 60 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974.

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-	dollars				--years--
6	6	0	4.98	83.03	40
6	6	4	4.72	78.60	40
6	6	5	4.65	77.49	40
6	6	10	4.32	71.95	40
6	6	20	3.65	60.88	40
6	8	0	5.55	92.50	40
6	8	4	5.28	88.07	40
6	8	5	5.22	86.96	40
6	8	10	4.89	81.43	40
6	8	20	4.22	70.35	40
6	10	0	6.12	101.98	40
6	10	4	5.85	97.55	40
6	10	5	5.79	96.44	40
6	10	10	5.45	90.90	40
6	10	20	4.79	79.82	40
6	12	0	6.69	111.45	40
6	12	4	6.42	107.02	40
6	12	5	6.35	105.91	40
6	12	10	6.02	100.37	40
6	12	20	5.36	89.30	40
6	15	0	7.54	125.66	40
6	15	4	7.27	121.23	40
6	15	5	7.21	120.12	40
6	15	10	6.88	114.59	40
6	15	20	6.21	103.51	40
7	6	0	4.07	58.20	40
7	6	4	3.77	53.91	40
7	6	5	3.70	52.84	40
7	6	10	3.32	47.49	40
7	6	20	2.57	36.77	40
7	8	0	4.58	65.38	40
7	8	4	4.28	61.10	40
7	8	5	4.20	60.03	40
7	8	10	3.83	54.67	40
7	8	20	3.08	43.95	40
7	10	0	5.08	72.57	40
7	10	4	4.78	68.28	40
7	10	5	4.70	67.21	40
7	10	10	4.33	61.85	40
7	10	20	3.58	51.14	40

Table 3. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 60 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		------------------dollars------------------			--years--
7	12	0	5.58	79.75	40
7	12	4	5.28	75.46	40
7	12	5	5.21	74.39	40
7	12	10	4.83	69.03	40
7	12	20	4.08	58.32	40
7	15	0	6.34	90.52	40
7	15	4	6.04	86.24	40
7	15	5	5.96	85.17	40
7	15	10	5.59	79.81	40
7	15	20	4.84	69.09	40
8	6	0	3.33	41.58	40
8	6	4	2.99	37.39	40
8	6	5	2.91	36.34	40
8	6	10	2.49	31.10	40
8	6	20	1.65	20.62	40
8	8	0	3.77	47.12	40
8	8	4	3.43	42.92	40
8	8	5	3.35	41.88	40
8	8	10	2.93	36.64	40
8	8	20	2.09	26.15	40
8	10	0	4.21	52.65	40
8	10	4	3.88	48.46	40
8	10	5	3.79	47.41	40
8	10	10	3.37	42.17	40
8	10	20	2.54	31.69	40
8	12	0	4.66	58.19	40
8	12	4	4.32	54.00	40
8	12	5	4.24	52.95	40
8	12	10	3.82	47.71	40
8	12	20	2.98	37.23	40
8	15	0	5.32	66.49	40
8	15	4	4.98	62.30	40
8	15	5	4.90	61.25	40
8	15	10	4.48	56.01	40
8	15	20	3.64	45.53	40
9	6	0	2.71	30.16	40
9	6	4	2.34	26.03	40
9	6	5	2.25	25.00	40
9	6	10	1.78	19.83	40
9	6	20	-.43	-4.74	40
9	8	0	3.10	34.48	40
9	8	4	2.73	30.35	40
9	8	5	2.64	29.32	40
9	8	10	2.17	24.15	40
9	8	20	1.24	13.82	40
9	10	0	3.49	38.80	40
9	10	4	3.12	34.67	40
9	10	5	3.03	33.64	40
9	10	10	2.56	28.47	40
9	10	20	1.63	18.14	40

Table 3. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 60 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		------------------dollars------------------			--years--
9	12	0	3.88	43.12	40
9	12	4	3.51	38.99	40
9	12	5	3.42	37.96	40
9	12	10	2.95	32.79	40
9	12	20	2.02	22.47	40
9	15	0	4.46	49.60	40
9	15	4	4.09	45.47	40
9	15	5	4.00	44.44	40
9	15	10	3.53	39.27	40
9	15	20	2.61	28.95	40
10	6	0	2.22	22.16	40
10	6	4	1.81	18.07	40
10	6	5	1.70	17.05	40
10	6	10	1.19	11.93	40
10	6	20	-.81	-8.08	30
10	8	0	2.56	25.56	40
10	8	4	2.15	21.47	40
10	8	5	2.05	20.45	40
10	8	10	1.53	15.34	40
10	8	20	-.37	-3.70	30
10	10	0	2.90	28.97	40
10	10	4	2.49	24.88	40
10	10	5	2.39	23.85	40
10	10	10	1.87	18.74	40
10	10	20	.85	8.52	40
10	12	0	3.24	32.37	40
10	12	4	2.83	28.28	40
10	12	5	2.73	27.26	40
10	12	10	2.21	22.15	40
10	12	20	1.19	11.92	40
10	15	0	3.93	39.28	20
10	15	4	3.46	34.59	20
10	15	5	3.34	33.41	20
10	15	10	2.75	27.54	20
10	15	20	1.70	17.03	40
11	6	0	1.81	16.46	40
11	6	4	1.36	12.40	40
11	6	5	1.25	11.39	40
11	6	10	-.02	-.15	30
11	6	20	-1.17	-10.60	30
11	8	0	2.11	19.17	40
11	8	4	1.66	15.10	40
11	8	5	1.55	14.09	40
11	8	10	.99	9.01	40
11	8	20	-.79	-7.17	30
11	10	0	2.41	21.87	40
11	10	4	1.96	17.81	40
11	10	5	1.85	16.79	40
11	10	10	1.29	11.71	40
11	10	20	-.41	-3.73	30

Table 3. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 60 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		-------------------dollars	-------------------		--years--
11	12	0	2.80	25.49	20
11	12	4	2.30	20.92	20
11	12	5	2.18	19.78	20
11	12	10	1.59	14.42	40
11	12	20	-.03	-.29	30
11	15	0	3.50	31.86	20
11	15	4	3.00	27.29	20
11	15	5	2.88	26.15	20
11	15	10	2.25	20.44	20
11	15	20	.99	9.03	20
12	6	0	1.48	12.36	40
12	6	4	1.00	8.31	40
12	6	5	.88	7.30	40
12	6	10	-.26	-2.19	30
12	6	20	-1.50	-12.54	30
12	8	0	1.74	14.52	40
12	8	4	1.26	10.47	40
12	8	5	1.14	9.46	40
12	8	10	.53	4.41	40
12	8	20	-1.18	-9.82	30
12	10	0	2.08	17.35	20
12	10	4	1.55	12.89	20
12	10	5	1.41	11.77	20
12	10	10	.79	6.57	40
12	10	20	-.85	-7.11	30
12	12	0	2.50	20.82	20
12	12	4	1.96	16.36	20
12	12	5	1.83	15.24	20
12	12	10	1.16	9.66	20
12	12	20	-.53	-4.39	30
12	15	0	3.12	26.02	20
12	15	4	2.59	21.56	20
12	15	5	2.45	20.44	20
12	15	10	1.78	14.87	20
12	15	20	-.04	-.31	30

Table 4. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 70 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974.

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		-------------------dollars	-------------------		--years--
6	6	0	7.55	125.79	40
6	6	4	7.28	121.35	40
6	6	5	7.21	120.25	40
6	6	10	6.88	114.71	40
6	6	20	6.22	103.63	40
6	8	0	8.21	136.90	40
6	8	4	7.95	132.47	40

Table 4. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 70 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent		------------------dollars	------------------		--years--
6	8	5	7.88	131.36	40
6	8	10	7.55	125.82	40
6	8	20	6.88	114.75	40
6	10	0	8.88	148.02	40
6	10	4	8.62	143.59	40
6	10	5	8.55	142.48	40
6	10	10	8.22	136.94	40
6	10	20	7.55	125.86	40
6	12	0	9.55	159.14	40
6	12	4	9.28	154.70	40
6	12	5	9.22	153.60	40
6	12	10	8.88	148.06	40
6	12	20	8.22	136.98	40
6	15	0	10.67	177.83	30
6	15	4	10.38	172.99	30
6	15	5	10.31	171.78	30
6	15	10	9.94	165.73	30
6	15	20	9.22	153.62	30
7	6	0	6.18	88.35	40
7	6	4	5.88	84.06	40
7	6	5	5.81	82.99	40
7	6	10	5.43	77.63	40
7	6	20	4.68	66.92	40
7	8	0	6.78	96.87	40
7	8	4	6.48	92.58	40
7	8	5	6.41	91.51	40
7	8	10	6.03	86.15	40
7	8	20	5.28	75.44	40
7	10	0	7.38	105.38	40
7	10	4	7.08	101.10	40
7	10	5	7.00	100.03	40
7	10	10	6.63	94.67	40
7	10	20	5.88	83.95	40
7	12	0	8.04	114.80	30
7	12	4	7.71	110.19	30
7	12	5	7.63	109.04	30
7	12	10	7.23	103.28	30
7	12	20	6.47	92.47	40
7	15	0	9.20	131.40	30
7	15	4	8.88	126.79	30
7	15	5	8.79	125.64	30
7	15	10	8.39	119.88	30
7	15	20	7.59	108.37	30
8	6	0	5.06	63.24	40
8	6	4	4.72	59.04	40
8	6	5	4.64	58.00	40
8	6	10	4.22	52.75	40
8	6	20	3.38	42.27	40
8	8	0	5.59	69.87	40
8	8	4	5.25	65.68	40

Table 4. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 70 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		------------------dollars	------------------		--years--
8	8	5	5.17	64.63	40
8	8	10	4.75	59.39	40
8	8	20	3.91	48.90	40
8	10	0	6.21	77.68	30
8	10	4	5.86	73.24	30
8	10	5	5.77	72.13	30
8	10	10	5.33	66.58	30
8	10	20	4.44	55.47	30
8	12	0	6.89	86.15	30
8	12	4	6.54	81.71	30
8	12	5	6.45	80.60	30
8	12	10	6.00	75.05	30
8	12	20	5.12	63.95	30
8	15	0	7.91	98.86	30
8	15	4	7.55	94.42	30
8	15	5	7.46	93.31	30
8	15	10	7.02	87.76	30
8	15	20	6.13	76.66	30
9	6	0	4.14	45.94	40
9	6	4	3.76	41.81	40
9	6	5	3.67	40.78	40
9	6	10	3.21	35.62	40
9	6	20	2.28	25.29	40
9	8	0	4.72	52.39	30
9	8	4	4.33	48.07	30
9	8	5	4.23	46.99	30
9	8	10	3.74	41.58	30
9	8	20	2.77	30.76	30
9	10	0	5.31	58.97	30
9	10	4	4.92	54.64	30
9	10	5	4.82	53.56	30
9	10	10	4.33	48.15	30
9	10	20	3.36	37.34	30
9	12	0	5.90	65.55	30
9	12	4	5.51	61.22	30
9	12	5	5.41	60.14	30
9	12	10	4.93	54.73	30
9	12	20	3.95	43.92	30
9	15	0	6.79	75.41	30
9	15	4	6.40	71.09	30
9	15	5	6.30	70.00	30
9	15	10	5.81	64.60	30
9	15	20	4.84	53.78	30
10	6	0	3.49	34.93	30
10	6	4	3.07	30.69	30
10	6	5	2.96	29.63	30
10	6	10	2.43	24.32	30
10	6	20	1.37	13.71	30
10	8	0	4.01	40.09	30
10	8	4	3.58	35.85	30

Table 4. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 70 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-	-------------------	dollars	-------------------		--years--
10	8	5	3.48	34.78	30
10	8	10	2.95	29.48	30
10	8	20	1.89	18.87	30
10	10	0	4.52	45.25	30
10	10	4	4.10	41.00	30
10	10	5	3.99	39.94	30
10	10	10	3.46	34.64	30
10	10	20	2.40	24.03	30
10	12	0	5.04	50.41	30
10	12	4	4.62	46.16	30
10	12	5	4.51	45.10	30
10	12	10	3.98	39.80	30
10	12	20	2.92	29.19	30
10	15	0	5.81	58.14	30
10	15	4	5.39	53.90	30
10	15	5	5.28	52.84	30
10	15	10	4.75	47.54	30
10	15	20	3.69	36.93	30
11	6	0	2.95	26.86	30
11	6	4	2.49	22.68	30
11	6	5	2.38	21.63	30
11	6	10	1.80	16.40	30
11	6	20	-.65	-5.95	25
11	8	0	3.40	30.94	30
11	8	4	2.94	26.76	30
11	8	5	2.83	25.71	30
11	8	10	2.25	20.48	30
11	8	20	1.10	10.03	30
11	10	0	3.85	35.02	30
11	10	4	3.39	30.84	30
11	10	5	3.28	29.79	30
11	10	10	2.70	24.57	30
11	10	20	1.55	14.11	30
11	12	0	4.30	39.10	30
11	12	4	3.84	34.92	30
11	12	5	3.73	33.87	30
11	12	10	3.15	28.65	30
11	12	20	2.00	18.19	30
11	15	0	4.97	45.22	30
11	15	4	4.51	41.04	30
11	15	5	4.40	40.00	30
11	15	10	3.82	34.77	30
11	15	20	2.67	24.31	30
12	6	0	2.50	20.80	30
12	6	4	2.00	16.67	30
12	6	5	1.88	15.63	30
12	6	10	1.25	10.46	30
12	6	20	-1.05	-8.75	25
12	8	0	2.89	24.05	30
12	8	4	2.39	19.92	30

Table 4. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 70 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
12	8	5	2.27	18.88	30
12	8	10	1.65	13.71	30
12	8	20	-.55	-4.58	25
12	10	0	3.28	27.31	30
12	10	4	2.78	23.17	30
12	10	5	2.66	22.13	30
12	10	10	2.04	16.96	30
12	10	20	-.05	-.41	25
12	12	0	3.67	30.56	30
12	12	4	3.17	26.42	30
12	12	5	3.05	25.38	30
12	12	10	2.43	20.21	30
12	12	20	1.18	9.87	30
12	15	0	4.25	35.43	30
12	15	4	3.76	31.30	30
12	15	5	3.63	30.26	30
12	15	10	3.01	25.09	30
12	15	20	1.77	14.74	30

Table 5. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 80 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974.

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
6	6	0	12.43	207.24	40
6	6	4	12.17	202.81	40
6	6	5	12.10	201.70	40
6	6	10	11.77	196.16	40
6	6	20	11.11	185.09	40
6	8	0	13.32	222.05	40
6	8	4	13.06	217.62	40
6	8	5	12.99	216.51	40
6	8	10	12.66	210.97	40
6	8	20	11.99	199.90	40
6	10	0	14.21	236.86	40
6	10	4	13.95	232.43	40
6	10	5	13.88	231.32	40
6	10	10	13.55	225.78	40
6	10	20	12.88	214.70	40
6	12	0	15.10	251.67	40
6	12	4	14.83	247.24	40
6	12	5	14.77	246.13	40
6	12	10	14.44	240.59	40
6	12	20	13.77	229.51	40
6	15	0	16.43	273.88	40
6	15	4	16.17	269.45	40
6	15	5	16.10	268.34	40
6	15	10	15.77	262.81	40

Table 5. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 80 Land Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
6	15	20	15.10	251.73	40
7	6	0	10.26	146.62	40
7	6	4	9.96	142.33	40
7	6	5	9.89	141.26	40
7	6	10	9.51	135.90	40
7	6	20	8.76	125.18	40
7	8	0	11.07	158.14	40
7	8	4	10.77	153.85	40
7	8	5	10.69	152.78	40
7	8	10	10.32	147.42	40
7	8	20	9.57	136.71	40
7	10	0	11.88	169.67	40
7	10	4	11.58	165.38	40
7	10	5	11.50	164.31	40
7	10	10	11.13	158.95	40
7	10	20	10.38	148.23	40
7	12	0	12.68	181.19	40
7	12	4	12.38	176.90	40
7	12	5	12.31	175.83	40
7	12	10	11.93	170.47	40
7	12	20	11.18	159.76	40
7	15	0	13.89	198.48	40
7	15	4	13.59	194.19	40
7	15	5	13.52	193.12	40
7	15	10	13.14	187.76	40
7	15	20	12.39	177.05	40
8	6	0	8.46	105.81	40
8	6	4	8.13	101.62	40
8	6	5	8.05	100.57	40
8	6	10	7.63	95.33	40
8	6	20	6.79	84.85	40
8	8	0	9.20	114.94	40
8	8	4	8.86	110.75	40
8	8	5	8.78	109.70	40
8	8	10	8.36	104.46	40
8	8	20	7.52	93.98	40
8	10	0	9.93	124.07	40
8	10	4	9.59	119.88	40
8	10	5	9.51	118.83	40
8	10	10	9.09	113.59	40
8	10	20	8.25	103.10	40
8	12	0	10.66	133.20	40
8	12	4	10.32	129.01	40
8	12	5	10.24	127.96	40
8	12	10	9.82	122.72	40
8	12	20	8.98	112.23	40
8	15	0	11.75	146.89	40
8	15	4	11.42	142.70	40
8	15	5	11.33	141.65	40
8	15	10	10.91	136.41	40

Table 5. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 80 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-	-------------------dollars-------------------				--years--
8	15	20	10.07	125.93	40
9	6	0	6.98	77.60	40
9	6	4	6.61	73.47	40
9	6	5	6.52	72.44	40
9	6	10	6.05	67.27	40
9	6	20	5.12	56.94	40
9	8	0	7.64	84.93	40
9	8	4	7.27	80.80	40
9	8	5	7.18	79.77	40
9	8	10	6.71	74.60	40
9	8	20	5.78	64.27	40
9	10	0	8.30	92.26	40
9	10	4	7.93	88.13	40
9	10	5	7.84	87.09	40
9	10	10	7.37	81.93	40
9	10	20	6.44	71.60	40
9	12	0	8.97	99.71	30
9	12	4	8.59	95.46	40
9	12	5	8.50	94.42	40
9	12	10	8.03	89.26	40
9	12	20	7.10	78.93	40
9	15	0	10.18	113.16	30
9	15	4	9.79	108.83	30
9	15	5	9.70	107.75	30
9	15	10	9.21	102.34	30
9	15	20	8.24	91.53	30
10	6	0	5.77	57.70	40
10	6	4	5.36	53.61	40
10	6	5	5.26	52.58	40
10	6	10	4.75	47.47	40
10	6	20	3.72	37.25	40
10	8	0	6.36	63.64	40
10	8	4	5.96	59.55	40
10	8	5	5.85	58.53	40
10	8	10	5.34	53.42	40
10	8	20	4.32	43.19	40
10	10	0	7.04	70.41	30
10	10	4	6.62	66.17	30
10	10	5	6.51	65.11	30
10	10	10	5.98	59.80	30
10	10	20	4.92	49.19	30
10	12	0	7.76	77.57	30
10	12	4	7.33	73.33	30
10	12	5	7.23	72.27	30
10	12	10	6.70	66.97	30
10	12	20	5.64	56.36	30
10	15	0	8.83	88.32	30
10	15	4	8.41	84.08	30
10	15	5	8.30	83.02	30
10	15	10	7.77	77.71	30

Table 5. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 80 Land Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimun Rotation
-percent-		-------------------	dollars	-------------------	--years-
10	15	20	6.71	67.11	30
11	6	0	4.80	43.60	30
11	6	4	4.34	39.42	30
11	6	5	4.22	38.37	30
11	6	10	3.66	33.27	40
11	6	20	2.54	23.11	40
11	8	0	5.43	49.38	30
11	8	4	4.97	45.20	30
11	8	5	4.86	44.15	30
11	8	10	4.28	38.93	30
11	8	20	3.13	28.47	30
11	10	0	6.07	55.16	30
11	10	4	5.61	50.98	30
11	10	5	5.49	49.94	30
11	10	10	4.92	44.71	30
11	10	20	3.77	34.25	30
11	12	0	6.70	60.95	30
11	12	4	6.24	56.76	30
11	12	5	6.13	55.72	30
11	15	0	7.66	69.62	30
11	15	4	7.20	65.43	30
11	15	5	7.08	64.39	30
11	15	10	6.51	59.16	30
11	15	20	5.36	48.70	30
12	6	0	4.10	34.17	30
12	6	4	3.60	30.03	30
12	6	5	3.48	29.00	30
12	6	10	2.86	23.83	30
12	6	20	1.62	13.48	30
12	8	0	4.66	38.87	30
12	8	4	4.17	34.74	30
12	8	5	4.04	33.70	30
12	8	10	3.42	28.53	30
12	8	20	2.18	18.18	30
12	10	0	5.23	43.58	30
12	10	4	4.73	39.44	30
12	10	5	4.61	38.41	30
12	10	10	3.99	33.23	30
12	10	20	2.75	22.89	30
12	12	0	5.79	48.28	30
12	12	4	5.30	44.14	30
12	12	5	5.17	43.11	30
12	12	10	4.55	37.94	30
12	12	20	3.31	27.59	30
12	15	0	6.64	55.34	30
12	15	4	6.14	51.20	30
12	15	5	6.02	50.16	30
12	15	10	5.40	44.99	30
12	15	20	4.16	34.65	30

Table 6. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 90 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974.

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
6	6	0	16.79	279.87	40
6	6	4	16.53	275.44	40
6	6	5	16.46	274.33	40
6	6	10	16.13	268.79	40
6	6	20	15.46	257.72	40
6	8	0	17.68	294.69	40
6	8	4	17.42	290.26	40
6	8	5	17.35	289.16	40
6	8	10	17.02	283.62	40
6	8	20	16.35	272.54	40
6	10	0	18.57	309.52	40
6	10	4	18.31	305.09	40
6	10	5	18.24	303.98	40
6	10	10	17.91	298.44	40
6	10	20	17.24	287.36	40
6	12	0	19.46	324.34	40
6	12	4	19.19	319.91	40
6	12	5	19.13	318.80	40
6	12	10	18.80	313.26	40
6	12	20	18.13	302.19	40
6	15	0	20.79	346.58	40
6	15	4	20.53	342.15	40
6	15	5	20.46	341.04	40
6	15	10	20.13	335.50	40
6	15	20	19.47	324.42	40
7	6	0	13.86	197.97	40
7	6	4	13.56	193.69	40
7	6	5	13.48	192.61	40
7	6	10	13.11	187.26	40
7	6	20	12.36	176.54	40
7	8	0	14.66	209.49	40
7	8	4	14.36	205.20	40
7	8	5	14.29	204.13	40
7	8	10	13.91	198.77	40
7	8	20	13.16	188.06	40
7	10	0	15.47	221.01	40
7	10	4	15.17	216.72	40
7	10	5	15.10	215.65	40
7	10	10	14.72	210.29	40
7	10	20	13.97	199.58	40
7	12	0	16.28	232.53	40
7	12	4	15.98	228.24	40
7	12	5	15.90	227.17	40
7	12	10	15.53	221.81	40
7	12	20	14.78	211.10	40
7	15	0	17.49	249.80	40
7	15	4	17.19	245.52	40
7	15	5	17.11	244.45	40
7	15	10	16.74	239.09	40
7	15	20	15.99	228.37	40

Table 6. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 90 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
8	6	0	11.42	142.71	40
8	6	4	11.08	138.52	40
8	6	5	11.00	137.47	40
8	6	10	10.58	132.23	40
8	6	20	9.74	121.74	40
8	8	0	12.15	151.82	40
8	8	4	11.81	147.62	40
8	8	5	11.73	146.57	40
8	8	10	11.31	141.33	40
8	8	20	10.47	130.85	40
8	10	0	12.87	160.92	40
8	10	4	12.54	156.73	40
8	10	5	12.45	155.68	40
8	10	10	12.04	150.44	40
8	10	20	11.20	139.96	40
8	12	0	13.60	170.03	40
8	12	4	13.27	165.84	40
8	12	5	13.18	164.79	40
8	12	10	12.76	159.55	40
8	12	20	11.93	149.06	40
8	15	0	15.05	188.16	25
8	15	4	14.68	183.48	25
8	15	5	14.58	182.31	25
8	15	10	14.12	176.45	25
8	15	20	13.18	164.74	25
9	6	0	9.40	104.42	40
9	6	4	9.03	100.29	40
9	6	5	8.93	99.26	40
9	6	10	8.47	94.09	40
9	6	20	7.54	83.77	40
9	8	0	10.05	111.72	40
9	8	4	9.68	107.59	40
9	8	5	9.59	106.55	40
9	8	10	9.12	101.39	40
9	8	20	8.20	91.06	40
9	10	0	10.82	120.18	25
9	10	4	10.41	115.65	25
9	10	5	10.31	114.52	25
9	10	10	9.80	108.86	25
9	10	20	8.85	98.35	40
9	12	0	11.77	130.78	25
9	12	4	11.36	126.25	25
9	12	5	11.26	125.12	25
9	12	10	10.75	119.47	25
9	12	20	9.73	108.15	25
9	15	0	13.20	146.68	25
9	15	4	12.79	142.16	25
9	15	5	12.69	141.03	25
9	15	10	12.18	135.37	25
9	15	20	11.17	124.06	25

Table 6. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 90 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
10	6	0	7.75	77.48	25
10	6	4	7.33	73.28	40
10	6	5	7.23	72.26	40
10	6	10	6.71	67.15	40
10	6	20	5.69	56.92	40
10	8	0	8.60	85.95	25
10	8	4	8.15	81.55	25
10	8	5	8.04	80.44	25
10	8	10	7.49	74.94	25
10	8	20	6.39	63.92	25
10	10	0	9.44	94.43	25
10	10	4	9.00	90.02	25
10	10	5	8.89	88.92	25
10	10	10	8.34	83.41	25
10	10	20	7.24	72.39	25
10	12	0	10.29	102.90	25
10	12	4	9.85	98.49	25
10	12	5	9.74	97.39	25
10	12	10	9.19	91.88	25
10	12	20	8.09	80.87	25
10	15	0	11.56	115.61	25
10	15	4	11.12	111.20	25
10	15	5	11.01	110.10	25
10	15	10	10.46	104.59	25
10	15	20	9.36	93.58	25
11	6	0	6.73	61.18	25
11	6	4	6.25	56.86	25
11	6	5	6.14	55.78	25
11	6	10	5.54	50.39	25
11	6	20	4.36	39.59	25
11	8	0	7.48	68.01	25
11	8	4	7.01	63.70	25
11	8	5	6.89	62.62	25
11	8	10	6.29	57.22	25
11	8	20	5.11	46.43	25
11	10	0	8.23	74.85	25
11	10	4	7.76	70.53	25
11	10	5	7.64	69.45	25
11	10	10	7.05	64.05	25
11	10	20	5.86	53.26	25
11	12	0	8.98	81.68	25
11	12	4	8.51	77.36	25
11	12	5	8.39	76.28	25
11	12	10	7.80	70.89	25
11	12	20	6.61	60.09	25
11	15	0	10.11	91.93	25
11	15	4	9.64	87.61	25
11	15	5	9.52	86.53	25
11	15	10	8.92	81.14	25
11	15	20	7.74	70.34	25

Table 6. Optimum Rotation and Capitalized Value With Annual Equivalent, Site Index 90 Land, Specified Interest Rates, Pulpwood Prices and Establishment Costs, Y-LT Watershed, 1974. (Continued)

Interest Rate	Price Per Cord	Establishment Cost	Annual Equivalent	Capitalized Value	Optimum Rotation
-percent-		--------------------dollars--------------------			--years--
12	6	0	5.84	48.66	25
12	6	4	5.33	44.41	25
12	6	5	5.20	43.34	25
12	6	10	4.56	38.03	25
12	6	20	3.29	27.41	25
12	8	0	6.50	54.21	25
12	8	4	5.99	49.96	25
12	8	5	5.87	48.90	25
12	8	10	5.23	43.58	25
12	8	20	3.95	32.96	25
12	10	0	7.17	59.76	25
12	10	4	6.66	55.51	25
12	10	5	6.53	54.45	25
12	10	10	5.90	49.13	25
12	10	20	4.62	38.51	25
12	12	0	7.84	65.31	25
12	12	4	7.33	61.06	25
12	12	5	7.20	60.00	25
12	12	10	6.56	54.69	25
12	12	20	5.29	44.06	25
12	15	0	8.84	73.64	25
12	15	4	8.33	69.39	25
12	15	5	8.20	68.33	25
12	15	10	7.56	63.01	25
12	15	20	6.29	52.39	25

Table 7. Estimated annual equivalent net return from timber per acre, selected age of stand, by site index and specified conditions[1], Y-LT Watershed, 1974.

	Site Index							
	60		70		80		90	
Age of Stand	Optimum Rotation	Annual Equiv. from stand age to optimum rotation	Optimum Rotation	Annual Equiv. from stand age to optimum rotation	Optimum Rotation	Annual Equiv. from stand age to optimum rotation	Optimum Rotation	Annual Equiv. from stand age to optimum rotation
	years	dollars	years	dollars	years	dollars	years	dollars
0	40	2.09	40	3.91	40	7.52	40	10.47
5	40	5.67	40	8.40	40	13.82	40	18.26
10	40	8.62	40	12.78	40	21.03	40	27.77
13	40	11.18	40	16.58	40	27.27	40	36.02
15	40	13.36	40	19.81	40	32.58	40	43.04
20	40	21.34	40	31.64	40	47.27	40	65.16

[1] The conditions specified are:

1) Price of pulpwood = $8 per cord
2) Price of sawtimber = $80 per MBF (Scribner scale)
3) Establishment costs = $20 per acre for the "0" stand age
4) Rate of discount = 8% per annum.

APPENDIX

Appendix Table 1. Estimated annual costs per acre for mixed permanent pasture, Y-LT Watershed, 1974.

Item	Unit	No. of Units	Price per Unit	Amount
Direct cost:				
Fertilizer				
N	Lb.	51	$ .15	$ 7.65
P_2O_5	Lb.	33	.18	5.94
K_2O	Lb.	33	.05	1.65
Lime	Cwt.	6.6	.60	3.96
Tractor & equipment	Ac.	1.0	1.59	1.59
Labor	Hr.	.5	2.00	1.00
Operating Capital	Dol.	10.85	.08	.87
Total direct cost				22.57
Indirect cost:				
Tractor & equipment				$ .91
Pro-rated establishment costs[1]				5.74
Interest on est. costs[2]				2.30
Total indirect cost				8.95
Total cost				$31.52

[1] Based on an expected 10-year life of permanent pasture stand after establishment.

[2] Interest at an annual rate of 8% on average investment.

Appendix Table 2. Estimated annual cost per acre for wheat-ryegrass pasture, Y-LT Watershed, 1974.

Item	Unit	Quantity	Price per Unit	Amount
Variable expenses				
Seed				
Ryegrass seed	Lb.	20.00	$ .40	$ 8.00
Wheat seed	Lb.	90.00	.10	9.00
Fertilizer				
Ammonium nitrate	Cwt.	3.60	5.00	18.00
Superphosphate	Cwt.	3.00	3.75	11.25
Muriate of potash	Cwt.	1.00	3.50	3.50
Lime (spread)	Ton	.33	12.00	4.00
Labor	Hour	3.00	2.00	6.00
Tractor equipment	Acre	1.00	8.19	8.19
Int. on Op. capital	Acre	1.00	4.83	4.83
Total variable expenses				$72.77
Fixed expenses				
Tractor and equipment	Acre	1.00	5.95	5.95
Total fixed expenses				5.95
Total specified expenses				78.72

Appendix Table 3. Estimated establishment cost per acre for mixed permanent pasture, Y-LT Watershed, 1974.

Item	Unit	No. of Units	Price per Unit	Amount
Seed[1]	Lb.	29	$ .68	$19.72
Fertilizer				
N	Lb.	51	.15	7.65
P_2O_5	Lb.	33	.18	5.94
K_2O	Lb.	33	.05	1.65
Lime	Cwt.	20	.60	12.00
Tractor & equipment	Ac.	1	7.08	7.08
Labor	Hour	1.7	2.00	3.40
Total cost				$57.39

[1] An estimated 25 percent of land must be reseeded. Reseeding costs are also reflected in labor and tractor and equipment costs.

Appendix Table 4. Schedule of returns and costs for the optimum planted pine timber rotation for Site Index 60 land, Y-LT Watershed.

Item	Year	Unit	Quantity	Price	Amount
				-----dollars-----	
Timber Sale:					
Pulpwood	20	cord	5	8.00	40.00
Pulpwood	25	cord	5	8.00	40.00
Pulpwood	30	cord	5	8.00	40.00
Pulpwood	35	cord	3	8.00	24.00
Sawtimber	35	MBF	1	80.00	80.00
Pulpwood	40	cord	3	8.00	24.00
Sawtimber	40	MBF	5	80.00	400.00
Total Revenue					648.00
Establishment Cost Per Acre:[1]					
Situation 1	1	acre	1		0.00
Situation 2	1	acre	1		4.00
Situation 3	1	acre	1		5.00
Situation 4	1	acre	1		10.00
Situation 5	1	acre	1		20.00
Returns discounted at 8 percent:					
Capitalized Value					
Situation 1					47.12
Situation 2					42.92
Situation 3					41.88
Situation 4					36.64
Situation 5					26.15
Annual Equivalent					
Situation 1					3.77
Situation 2					3.43
Situation 3					3.35
Situation 4					2.93
Situation 5					2.09

[1] Five establishment cost Situations are reported. These costs represent the various cost-share alternatives for all known cost-share programs.

It is assumed that other services associated with growing timber in the Y-LT Area are provided to the landowner at no cost.

Appendix Table 5. Schedule of returns and costs for the optimum planted pine timber rotation for Site Index 70 land, Y-LT Watershed.

Item	Year	Unit	Quantity	Price	Amount
				-----dollars-----	
Timber Sale:					
Pulpwood	20	cord	7	8.00	56.00
Pulpwood	25	cord	7	8.00	56.00
Pulpwood	30	cord	3	8.00	24.00
Sawtivber	30	MBF	1	80.00	80.00
Pulpwood	35	cord	3	8.00	24.00
Sawtimber	35	MBF	1	80.00	80.00
Pulpwood	40	cord	3	8.00	24.00
Sawtimber	40	MBF	7.6	80.00	608.00
Total Revenue					952.00
Establishment Cost Per Acre:[1]					
Situation 1	1	acre	1		0.00
Situation 2	1	acre	1		4.00
Situation 3	1	acre	1		5.00
Situation 4	1	acre	1		10.00
Situation 5	1	acre	1		20.00
Returns discounted at 8 percent:					
Capitalized Value					
Situation 1					69.87
Situation 2					65.68
Situation 3					64.63
Situation 4					59.39
Situation 5					48.90
Annual Equivalent					
Situation 1					5.59
Situation 2					5.25
Situation 3					5.17
Situation 4					4.75
Situation 5					3.91

[1] Five establishment cost Situations are reported. These costs represent the various cost-share alternatives for all known cost-share programs.

It is assumed that other services associated with growing timber in the Y-LT Area are provided to the landowner at no cost.

Appendix Table 6. Schedule of returns and costs for the optimum planted pine timber rotation for Site Index 80 land, Y-LT Watershed.

Item	Year	Unit	Quantity	Price	Amount
				-----dollars-----	
Timber Sale:					
Pulpwood	15	cord	4	8.00	32.00
Pulpwood	20	cord	6	8.00	48.00
Pulpwood	25	cord	6	8.00	48.00
Sawtimber	25	MBF	1	80.00	80.00
Pulpwood	30	cord	5	8.00	40.00
Sawtimber	30	MBF	1	80.00	80.00
Pulpwood	35	cord	3	8.00	24.00
Sawtimber	35	MBF	2.1	80.00	168.00
Pulpwood	40	cord	5	8.00	40.00
Sawtimber	40	MBF	11.9	80.00	952.00
Total Revenue					1,512.00
Establishment Cost Per Acre:[1]					
Situation 1	1	acre	1		0.00
Situation 2	1	acre	1		4.00
Situation 3	1	acre	1		5.00
Situation 4	1	acre	1		10.00
Situation 5	1	acre	1		20.00
Returns discounted at 8 percent:					
Capitalized Value					
Situation 1					114.94
Situation 2					110.75
Situation 3					109.70
Situation 4					104.46
Situation 5					93.98
Annual Equivalent					
Situation 1					9.20
Situation 2					8.86
Situation 3					8.78
Situation 4					8.36
Situation 5					7.52

[1] Five establishment cost Situations are reported. These costs represent the various cost-share alternatives for all known cost-share programs.

It is assumed that other services associated with growing timber in the Y-LT Area are provided to the landowner at no cost.

Appendix Table 7. Schedule of returns and costs for the optimum planted pine timber rotation for Site Index 90 land, Y-LT Watershed.

Item	Year	Unit	Quantity	Price	Amount
				-----dollars-----	
Timber Sale:					
Pulpwood	15	cord	3	8.00	24.00
Pulpwood	20	cord	8	8.00	64.00
Pulpwood	25	cord	5	8.00	40.00
Sawtimber	25	MBF	1.5	80.00	120.00
Pulpwood	30	cord	5	8.00	40.00
Sawtimber	30	MBF	2.5	80.00	200.00
Pulpwood	35	cord	4	8.00	32.00
Sawtimber	35	MBF	3.7	80.00	296.00
Pulpwood	40	cord	4	8.00	32.00
Sawtimber	40	MBF	14.3	80.00	1,144.00
Total Revenue					1,992.00
Establishment Cost Per Acre:[1]					
Situation 1	1	acre	1		0.00
Situation 2	1	acre	1		4.00
Situation 3	1	acre	1		5.00
Situation 4	1	acre	1		10.00
Situation 5	1	acre	1		20.00
Returns discounted at 8 percent:					
Capitalized Value					
Situation 1					151.82
Situation 2					147.62
Situation 3					146.57
Situation 4					141.33
Situation 5					130.85
Annual Equivalent					
Situation 1					12.15
Situation 2					11.81
Situation 3					11.73
Situation 4					11.31
Situation 5					10.47

[1] Five establishment cost Situations are reported. These costs represent the various cost-share alternatives for all known cost-share programs.

It is assumed that other services associated with growing timber in the Y-LT Area are provided to the landowner at no cost.

Appendix Table 8. SITE INDEX 60: Estimated yields per acre of pulpwood and sawtimber when thinned to 70 square feet basal area by rotation length, by age of stand, Y-LT Watershed.

Age of	Rotation length in years					
Stand	15	20	25	30	35	40
	---Pulpwood Cords---					
15	3	-	-	-	-	-
20		15	5	5	5	5
25			15	5	5	5
30				15	4	5
35					10	3
40						3
	Sawtimber[1] Thousand Board Feet					
35					3.0	1.0
40						5.0

[1] Sawtimber yields in Scribner log scale.

Appendix Table 9. SITE INDEX 70: Estimated yields per acre of pulpwood and sawtimber when thinned to 70 square feet basal area by rotation length, by age of stand, Y-LT Watershed.

Age of	Rotation length in years					
Stand	15	20	25	30	35	40
	---Pulpwood cords---					
15	8	-	-	-	-	-
20		20	7	7	7	7
25			21	7	7	7
30				13	3	3
35					13	3
40						3
	Sawtimber[1] Thousand Board Feet					
30				4.0	1.0	1.0
35					4.0	1.0
40						7.6

[1] Sawtimber yields in Scribner log scale.

Appendix Table 10. SITE INDEX 80: Estimated yields per acre of pulpwood and sawtimber when thinned to 100 square feet basal area by rotation length, by age of stand, Y-LT Watershed.

Age of	Rotation length in years					
Stand	15	20	25	30	35	40
	---Pulpwood cords---					
15	12	4	4	4	4	4
20		19	6	6	6	6
25			24	6	6	6
30				17	5	5
35					15	3
40						5
	Sawtimber[1] Thousand Board Feet					
25				1.0	1.0	1.0
30				5.5	1.0	1.0
35					5.0	2.1
40						11.9

[1] Sawtimber yields in Scribner log scale.

Appendix Table 11. SITE INDEX 90: Estimated yields per acre of pulpwood and sawtimber when thinned to 100 square feet basal area by rotation length, by age of stand, Y-LT Watershed.

Age of	Rotation length in years					
Stand	15	20	25	30	35	40
	---Pulpwood cords----					
15	16	3	3	3	3	3
20		27	8	8	8	8
25			21	5	5	5
30				22	5	5
35					17	4
40						4
	Sawtimber[1] Thousand Board Feet					
25			6.4	1.5	1.5	1.5
30				7.7	2.5	2.5
35					9.9	3.7
40						14.3

[1] Sawtimber yields in Scribner log scale.

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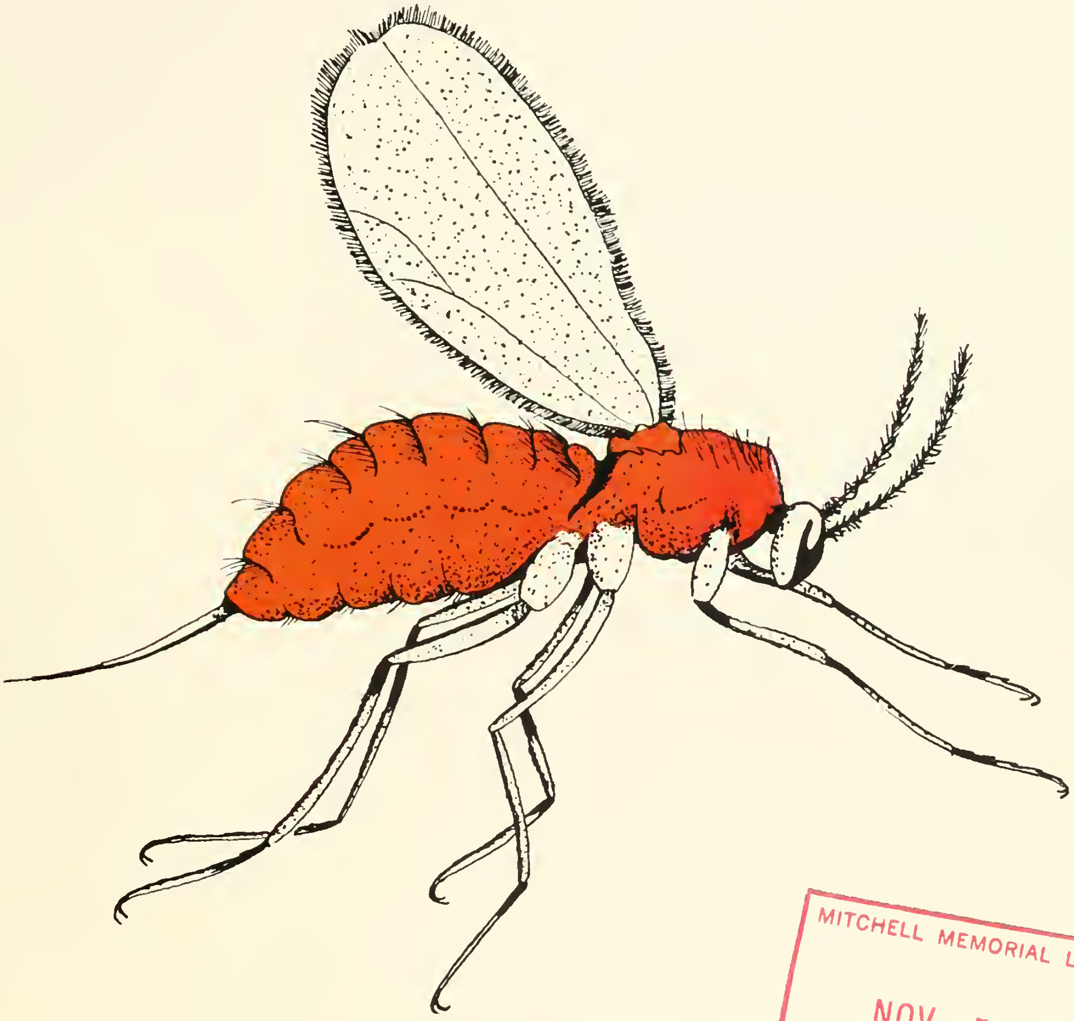
Bulletin 836

July 1975

The Sorghum Midge In Mississippi



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The Sorghum Midge in Mississippi

The sorghum midge, *Contarina sorghicola* (Coquillett), is a pest of grain sorghum wherever it is grown. It is the principle insect pest on sorghum grain heads in Mississippi, particularly where the crop has been grown in small acreages in the same area for several years and where johnsongrass is prevalent. With the increased demand for livestock feed and food for human consumption, there is a growing need for information to control this pest and other insect pests on sorghum.

In Mississippi, where sorghum is grown for grain and silage, practical and economical insect pest management is needed for this crop. Effective pest management practices would reduce the losses in seed yield attributed to the sorghum midge and would make production of this low value per acre crop more attractive.

The sorghum midge is a small (1/16 inch-long) orange-bodied, gnatlike fly or diptera in the family Cecidomyiidae. The midge adults are feeble fliers and can be seen crawling over the seed head when it is in bloom---yellow anthers exposed on the florets (Figure 1). Adults do not damage sorghum. The males live only a few hours and females live one or two days.

The female deposits eggs within the glume of the floret. The eggs hatch in two to three days into legless larvae (maggots) which feed on the juice of the developing seed. The larvae injure or destroy the developing seed causing it to shrivel and the seed coat to become discolored. Where there is complete loss of seed, the sorghum head has a slim compact look (Figure 2).

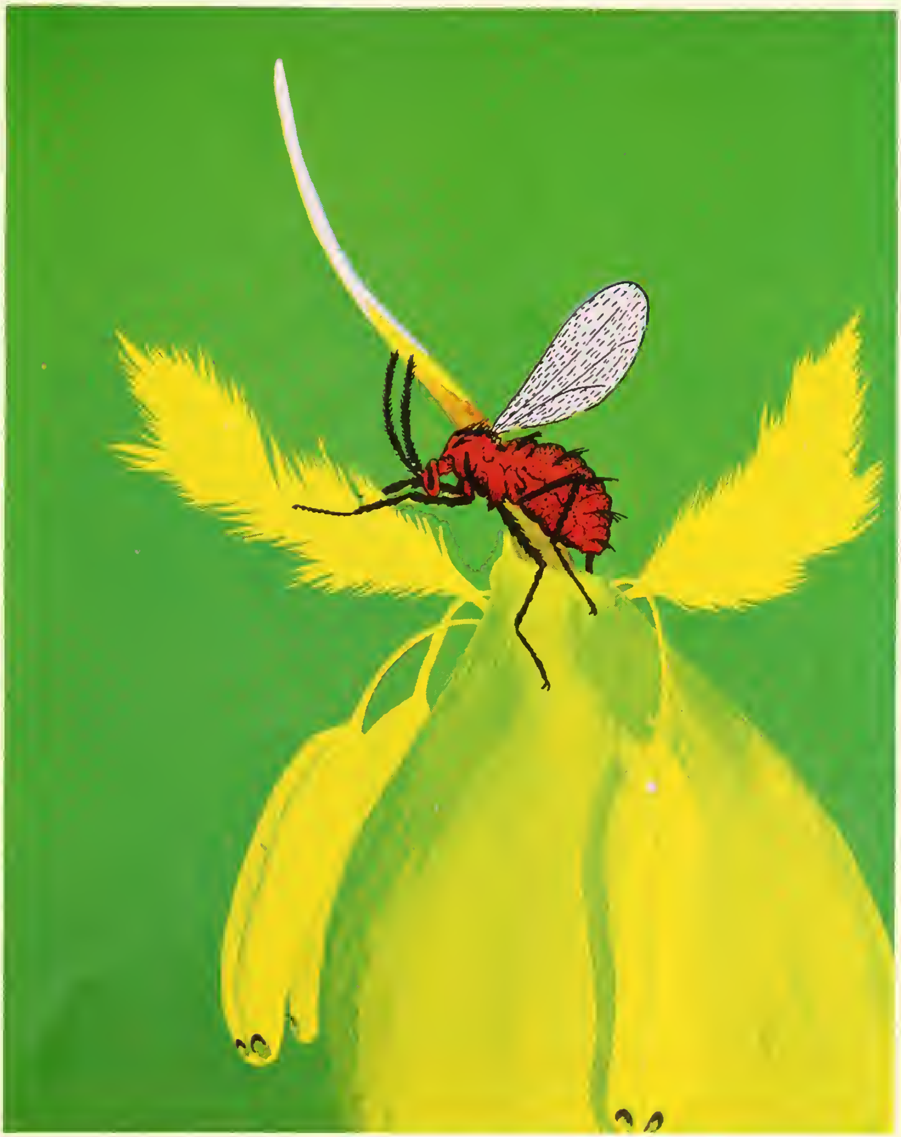

Figure 1. Adult female sorghum midge laying an egg in a sorghum floret (greatly enlarged illustration).

When the midge is present in large numbers, it can reduce sorghum grain yields significantly, particularly in small plantings or in stands that do not bloom uniformly. Large fields planted early and fruiting uniformly usually lose only a few seed, and this loss may be compensated for by the remaining seed becoming larger. Light infestations on early-planted and uniform stands may not require insect control. However, late plantings or stands that do not bloom uniformly may not escape the large midge populations that can build up in the surrounding area on johnsongrass and early planted sorghum.

Good crop and insect management practices can eliminate or minimize midge damage to grain sorghum. A necessary condition for developing effective management and production practices for control of the midge in grain sorghum is a thorough understanding of the biology and behavior of the insect, and of the ecosystem in which it resides.

Biological traits of the sorghum midge have been reported by Harding (1965), Randoff and Doering (1963) and Walter (1941). The insect overwinters as diapausing larvae within the florets of sorghum, johnsongrass or other host plant residue from the previous season. These larvae emerge in late spring or early summer, pupate and turn into a new generation of midges.

The females of this generation start the next generation by laying eggs in the glumes of florets of grain sorghum or other host plants. The larvae hatched from these eggs pupate after 9 to 11 days, depending on climatic conditions, and the pupae move to the tips of the glumes as they near the time for adult emergence. When adults emerge the pupal cases are left hanging from the tips of the glumes, and these can be easily seen bristling on heavily infested heads. The complete development of a new generation of the sorghum midge requires 14 to 18 days in the summer.

This report supplements an earlier bulletin[1] that reported results of studies of crop production practices for insect pest management in grain sorghum. Here we report in greater detail the results of 1971-73 studies of the sorghum midge. Major emphasis is on cultural practices as they affect winter survival of the midge, population and dispersal of the midge on johnsongrass, the relationship of date of planting to midge damage in grain sorghum and control of the midge with insecticides.

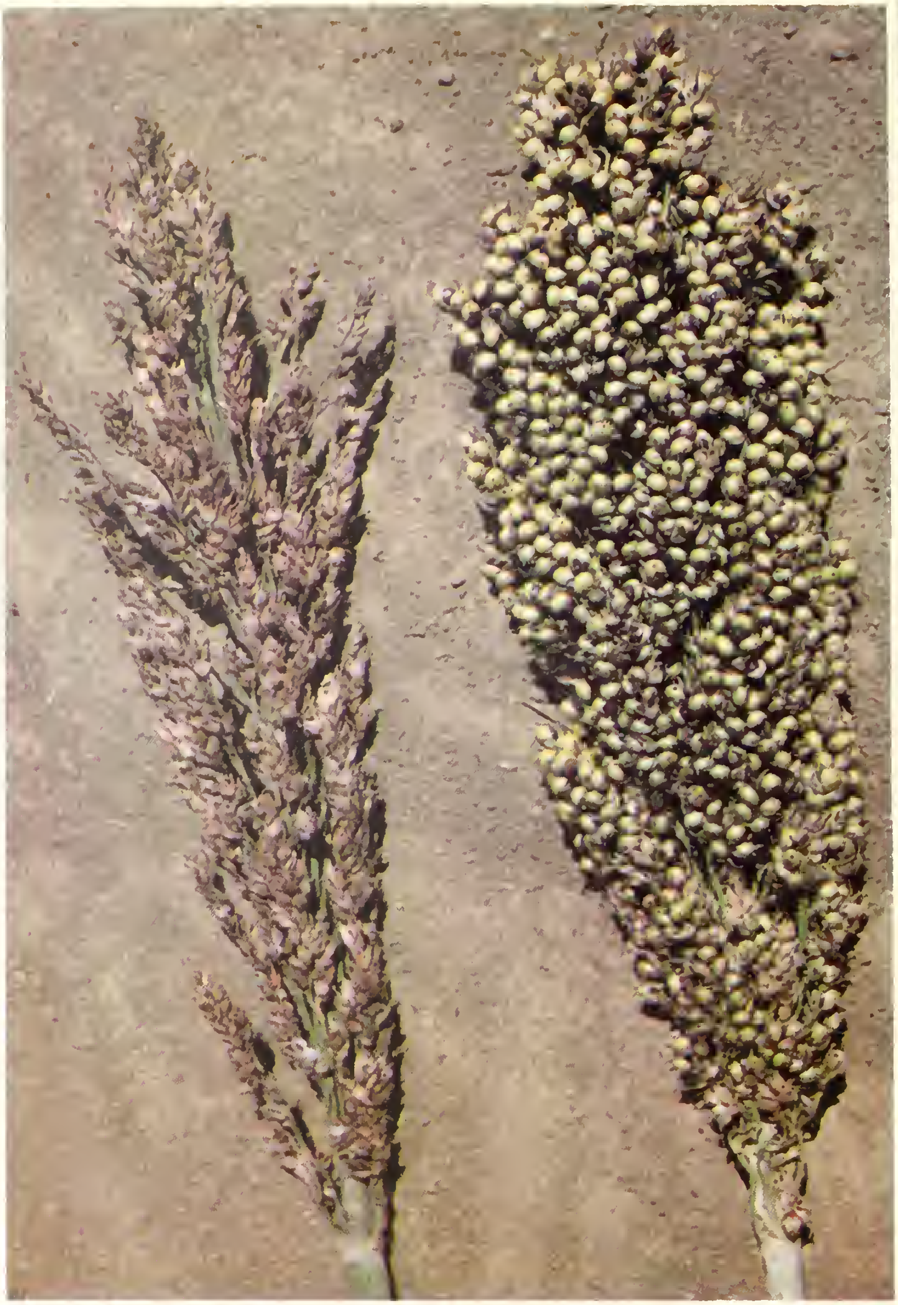

Figure 2. A midge-damaged head (left) and a healthy sorghum head.

Cultural Practices and Winter Survival of the Midge

We made traps of pyramid-shaped frames (one yard square at the bottom) by covering the sides with fine-mesh nylon screen and fitting a quart fruit jar (coated on the inside with vaseline) upside down at the top (Figure 3). In March we placed these traps over sites chosen on the basis of

---

[1] *Green, H. B., H. N. Pitre, L. M. Gourley and J. P. Roth, 1975.* **Management and Production Practices f Control of Insect Pests in Grain Sorghum.** *Mississippi Agricultural and Forestry Experiment Stati Bulletin No. 817. 8 pp., April 1975.*

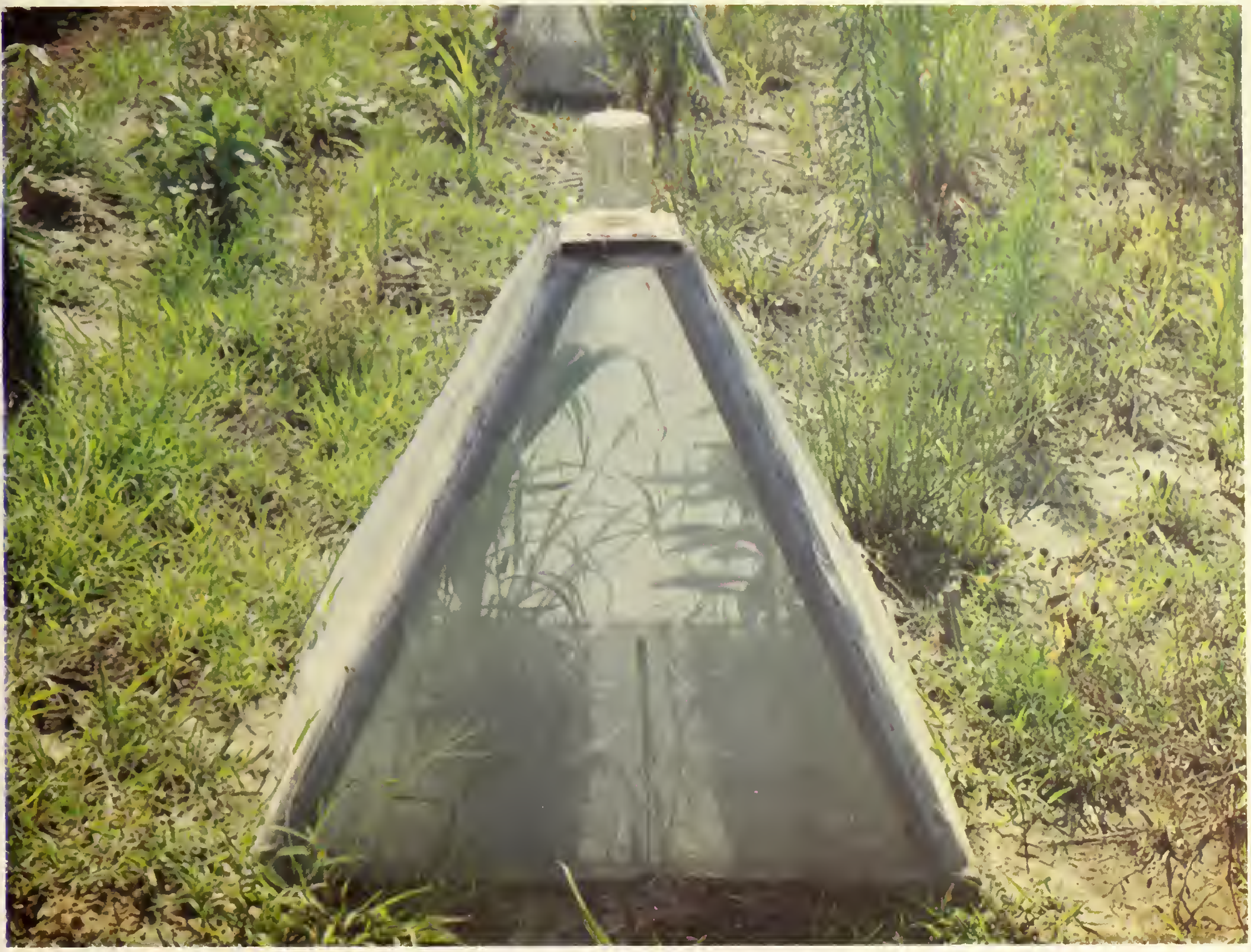

Figure 3. Pyramid-shaped cage 1 yard square at the base, covered with a fine mesh nylon screen and fitted with a quart jar on top.

characteristics suspected to be favorable to overwintering of the sorghum midge. The sample areas were:

1. Johnsongrass residue at the borders of grain sorghum fields that were heavily infested with the sorghum midge in the previous growing season, and
2. Fields where the residue from a grain sorghum crop in the previous year
   a. had not been disturbed by either winter or spring tillage,
   b. had been plowed under in mid-March,
   c. had been disked in the fall and planted to wheat, and
   d. had been plowed and disked in the fall and planted to wheat.

The collection jars were examined weekly (weather permitting) for 11 weeks and the number of adults in each jar was recorded. The jars were cleaned, recoated with vaseline and replaced on the traps on the day of examination.

Results---The first adult emergence from overwintering was recorded in the first week of April in 1972 (Figures 4 and 5) and in 1973. Adult emergence from all overwintering sites did not end until the third week in June.

There were two peaks of emergence from johnsongrass residue and from fields where sorghum residue had not been disturbed by either winter or spring tillage---one in mid-April and one in early May (Figure 4). The single peak of emergence from fields planted to wheat after sorghum occurred in early May (Figure 5).

Tillage practices alone did not appreciably affect adult emergence from overwintering diapause. Emergence patterns were similar from areas where sorghum residue was exposed on the soil surface through the winter and where the residue was plowed under in early spring. Emergence patterns were also similar from wheat fields that

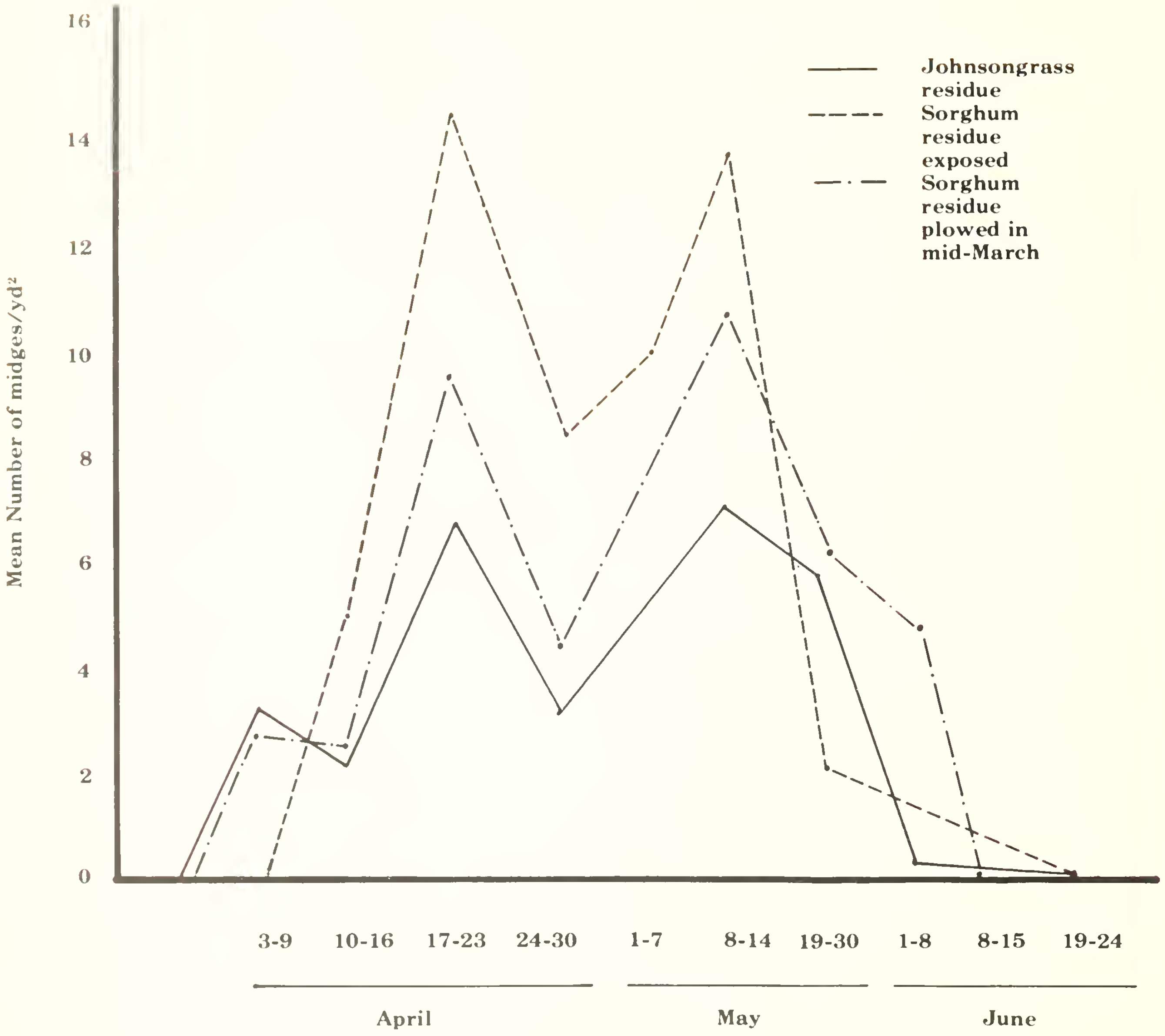

Figure 4. Mean midge emergence from overwintering sites. Oktibbeha County, Mississippi, 1972.

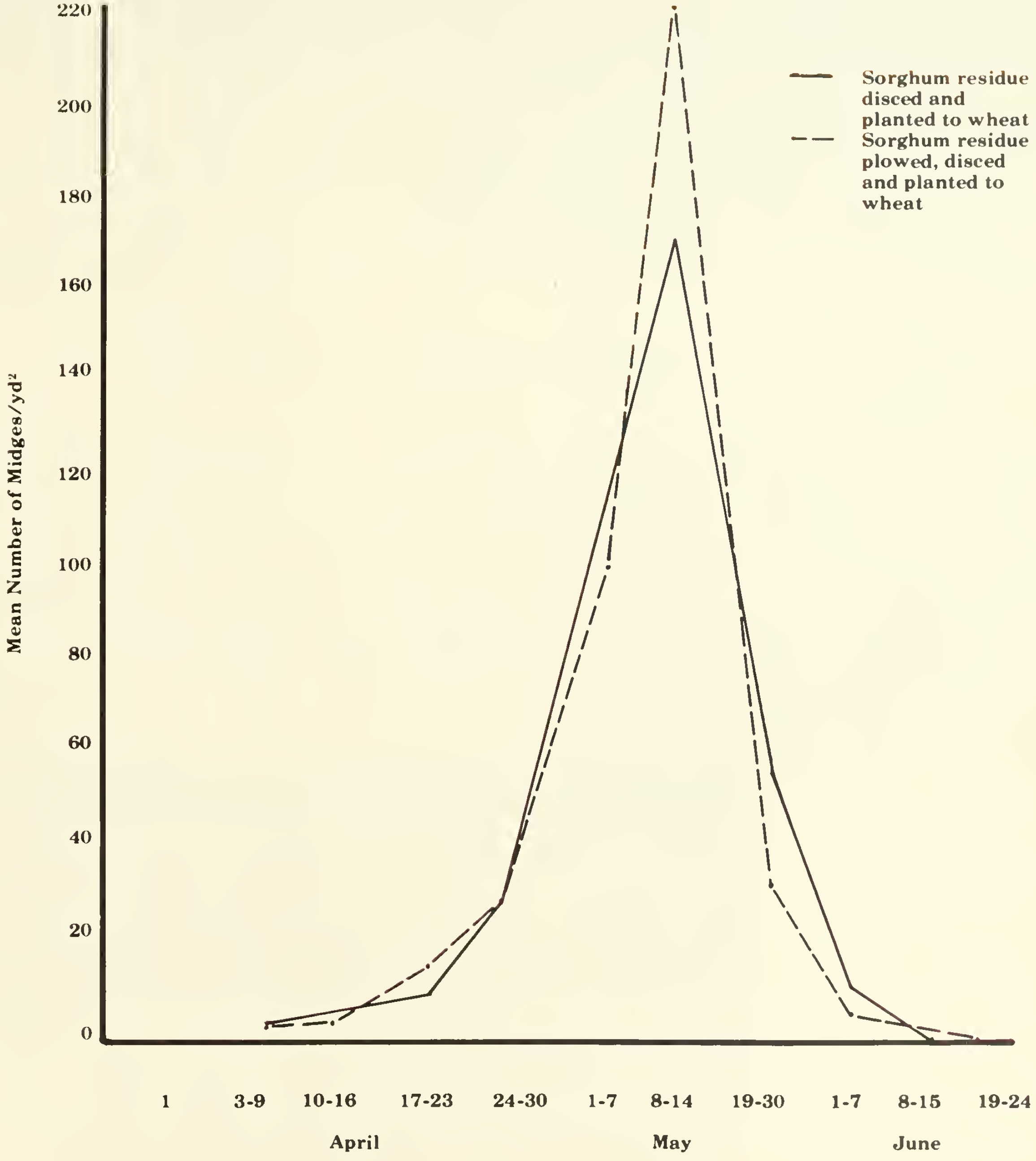

Figure 5. Mean midge emergence from overwintering sites. Oktibbeha County, Mississippi, 1972.

had been plowed and disked or disked only before wheat was planted.

Double cropping affects winter survival of the midge significantly. We collected 7 to 12 times as many adults from fields planted to wheat after sorghum than from any other sites (Table 1). Double cropping also increases the likelihood of midge damage to sorghum planted behind a winter grain crop. The wheat harvest, for example, delays sorghum planting and late-planted sorghum normally suffers the greatest midge damage.

Table 1. Midge emergence from overwintering sites, Oktibbeha County, Mississippi, 1972.

Sample areas	Midge per square yard	Estimated midge per acre
	number	number
Johnsongrass residue	33	159,300
Sorghum residue	51	247,808
Sorghum residue---plowed (mid-March)	58	279,752
Sorghum residue---disked (fall) and wheat planted	392	1,865,828
Sorghum residue---plowed, disked and wheat planted (fall)	409	1,981,012

Population and Dispersal of the Sorghum Midge on Johnsongrass

The long period of adult emergence from overwintering and the interval between the last day of adult emergence and first sorghum bloom suggest the necessity of an alternate or reservoir host plant for the sorghum midge. Peak adult emergence from overwintering occurred when large amounts of johnsongrass were beginning to bloom. The sorghum midge has not been recorded on other potential host plants in Mississippi; therefore, we investigated the role of johnsongrass in sustaining the sorghum midge population.

We selected johnsongrass stands at distances of 10, 20, 30 and 100 feet from the border of a sorghum field that had been tilled and seeded to wheat in the previous fall. Adult sorghum midges were collected from developing johnsongrass seed heads in each site selected. There was no johnsongrass growing between the border of the field and the johnsongrass stand 100 feet from the border.

One-half gallon cardboard containers were placed over twenty-five johnsongrass seed heads that had just completed pollination in each stand. They were placed initially in mid-May and each week thereafter until about October 1 when johnsongrass stopped blooming.

The inside of the lid of the cardboard container was coated with vaseline, each container was fitted with a cloth sleeve tied around the johnsongrass stem and the containers were supported by wooden stakes (Figure 6). Containers placed on seed heads on each date were examined each 7 days for 3 weeks---the approximate time required for all midges to emerge from an infested johnsongrass seed head. Midge numbers were recorded at each examination and the containers were handled as were the jars used in collecting midges in the overwintering study.

Results---The dispersal of adult sorghum midges from overwintering sites appears to be dependent

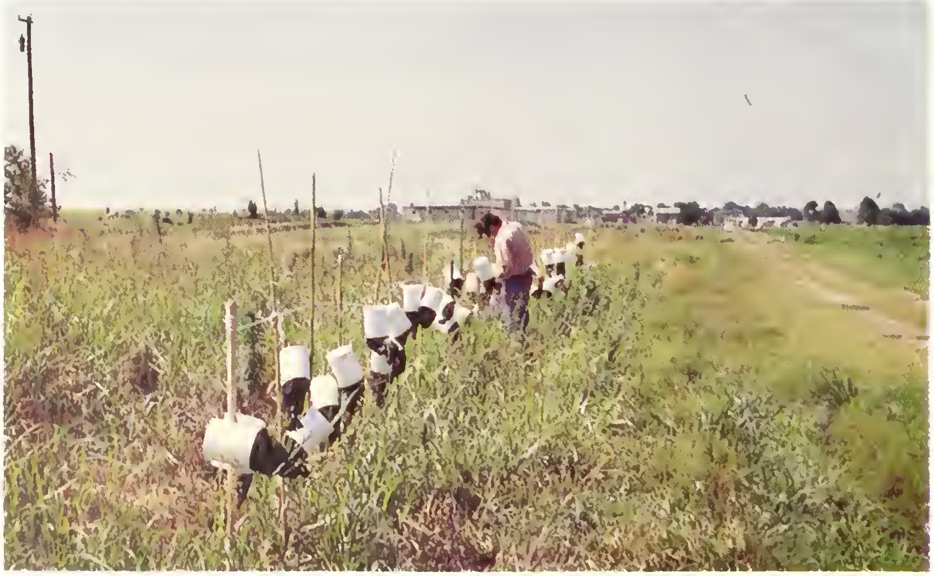

Figure 6. One-half gallon cardboard containers fitted with a sleeve and placed over developing johnsongrass seed heads to trap emerging adult sorghum midge (cages supported by wooden stakes).

n the availability of johnsongrass n bloom (Figure 7.) In all of our ounts they were most numerous n johnsongrass nearest the verwintering site. The population vas highest on johnsongrass seed eads 10 feet from the border of the overwintering field and decreased progressively on johnsongrass stands 20 and 30 feet from the border. But, when the nearest johnsongrass was 100 feet from the overwintering site, the emerging adults moved to it and the population was comparable to that on johnsongrass stands only 10 feet away from the overwintering field.

Adult emergence from johnsongrass ranged from 0 to 168 per head and emergence per head per week increased from an average of

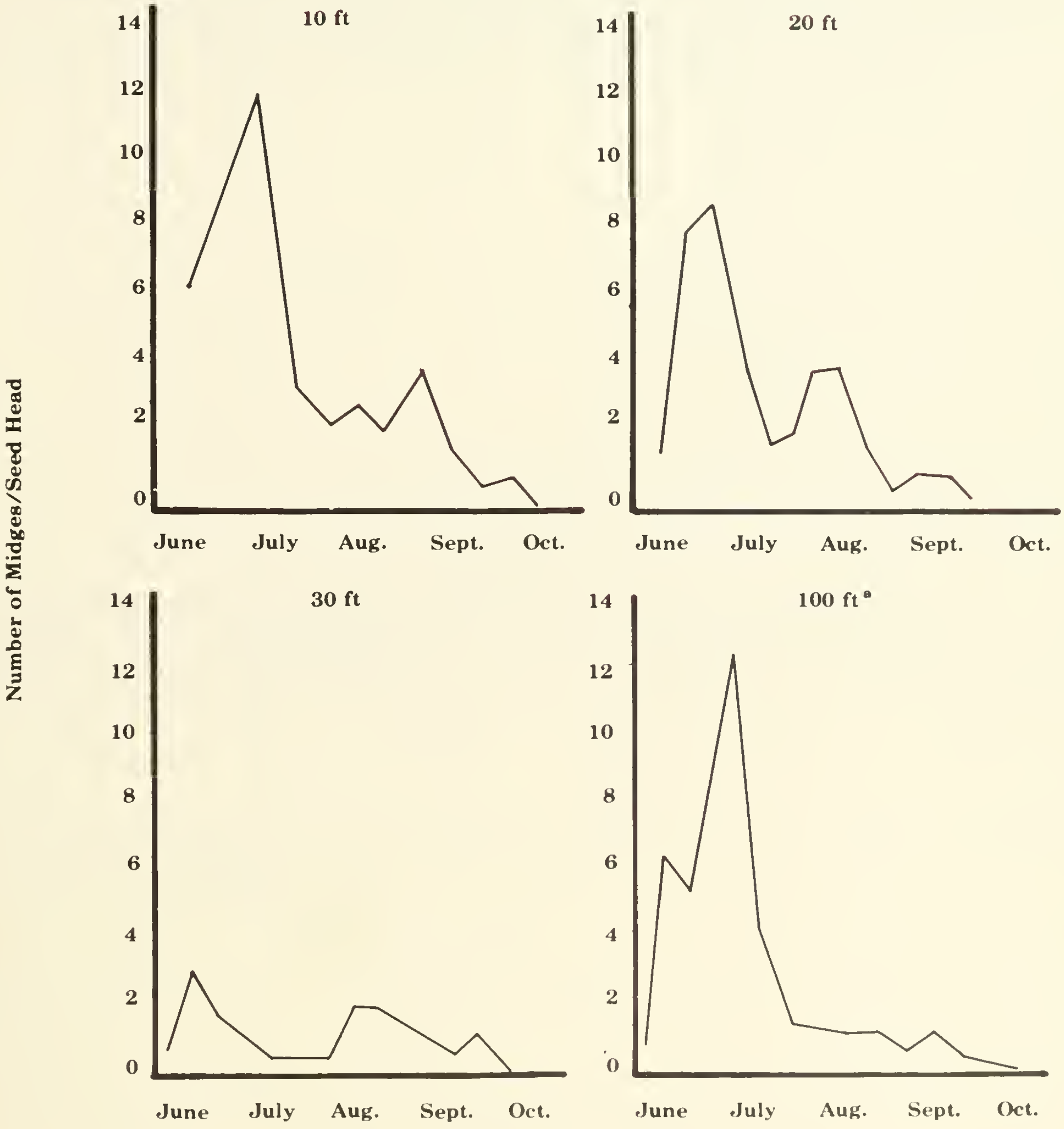

Figure 7. Mean weekly midge emergence from johnsongrass at four distances from the border of an old sorghum field, Oktibbeha County, Mississippi, 1972.

[a] *There was no johnsongrass between the 100 foot collection site and the border of the old sorghum field.*

7 during the week of June 19-24 to 13 during the week of July 17-24 (Figure 8). We recorded no emergence from johnsongrass after October 15, two weeks after it had stopped blooming.

Our results lead us to conclude that the relationship of johnsongrass to the sorghum midge in this area of Mississippi can best be explained as that of a reservoir or alternate host capable of sustaining the insect in relatively low numbers.

Generations of the Midge on Johnsongrass---The long period of adult emergence from overwintering results in overlapping of generations on johnsongrass and sorghum (Figure 9). Peak emergence from johnsongrass coincides with the first widespread bloom of volunteer and early-planted sorghum in the area.

Based on the midge life cycle of 14 to 18 days and the temperature range during the growing season in North Mississippi, this insect is capable of completing 9 to 11 generations during the five to six months that johnsongrass blooms. The midge was active in the test area on late-blooming sorghum tillers until first frost in November. Therefore, there could be 11 to 14 generations of the midge if it uses both its wild and cultivated hosts to their full potential.

Economic Infestations---The female midge may lay 30 to 100 eggs in the flowering spikelets of grain sorghum. Based on egg lay-

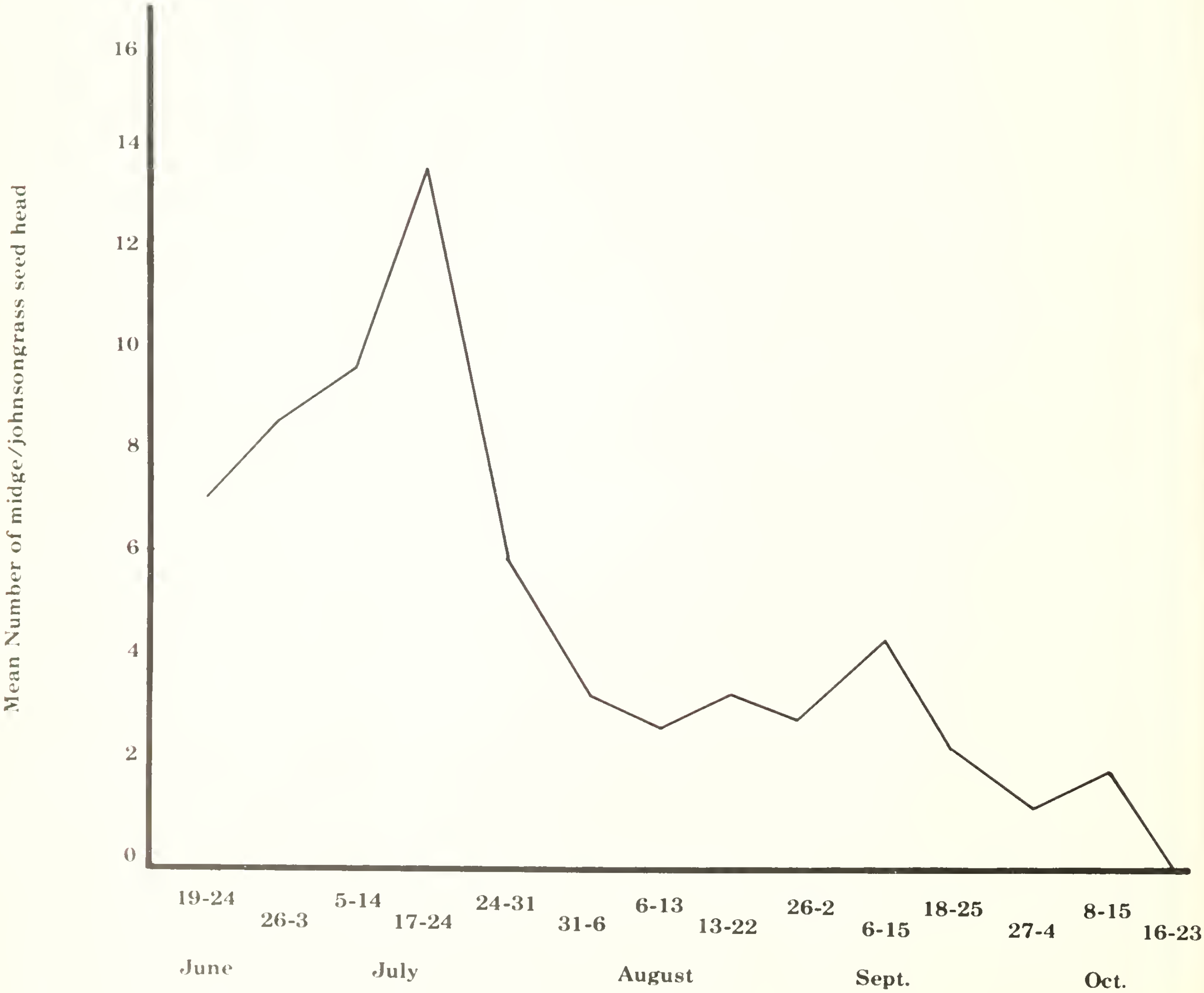

Fig. 8. Mean weekly midge emergence from johnsongrass seed heads, Oktibbeha County, Mississippi, 1972.

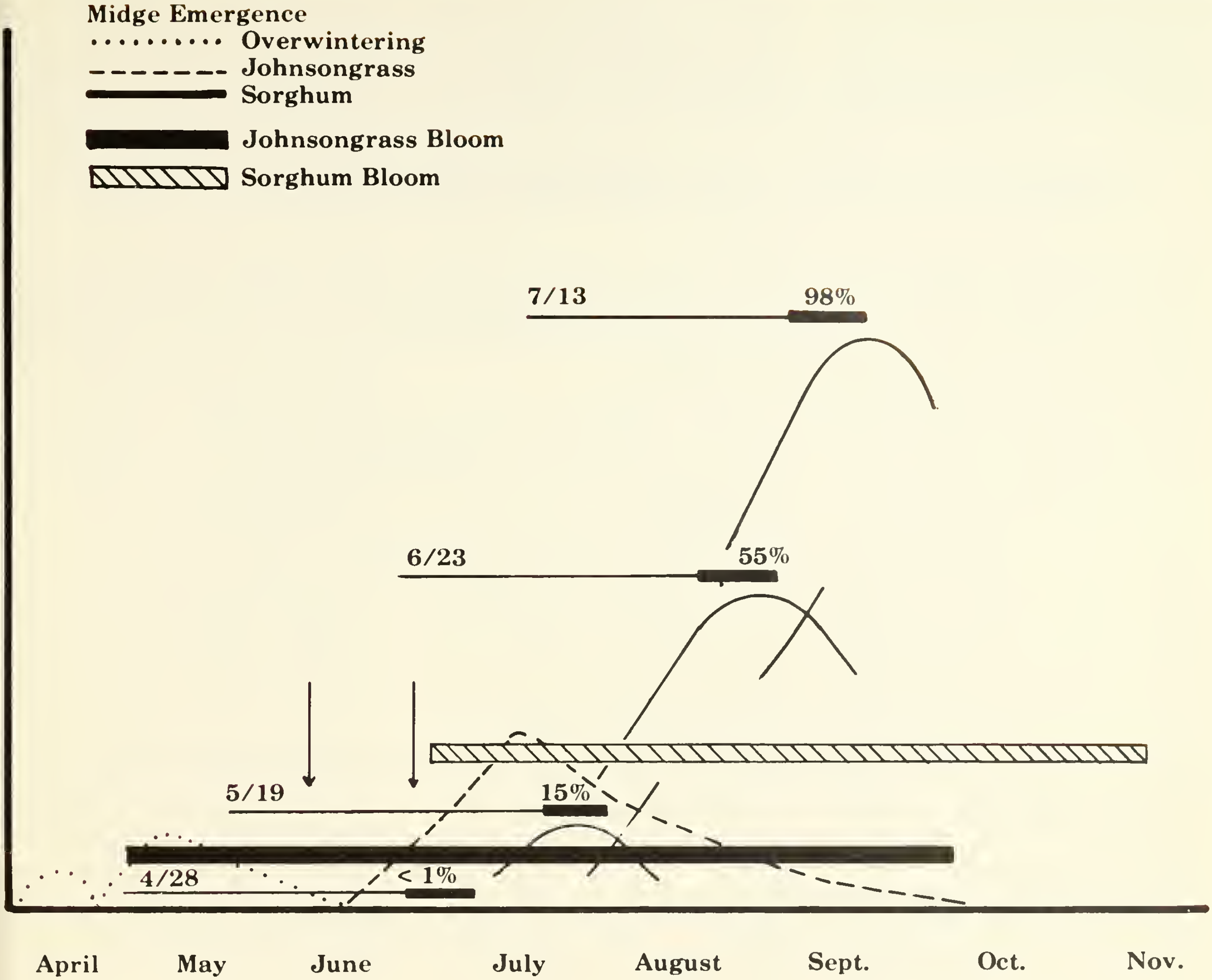

Figure 9. Seasonal midge populations, sorghum planting dates and percent seed loss. Oktibbeha County, Mississippi, 1972.

ing alone two to three females can lay sufficient numbers of eggs to significantly damage a head of grain sorghum. A single johnsongrass seed head could produce enough midges to economically damage approximately 28 sorghum heads.

The low numbers of midges that emerged from scattered johnsongrass along field borders or along fence rows indicate that midge populations produced on this host are not likely to cause economic damage to large fields of grain sorghum. This may not be the case where sorghum is grown in small fields, because there would be less dilution effect (midge numbers per sorghum head) as a result of the smaller ratio of cultivated area to johnsongrass infested area.

Johnsongrass Control---Johnsongrass eradication to prevent its use as a host for the midge is not practical in Mississippi but management of this host plant in and around sorghum fields can be beneficial. Johnsongrass can be clipped before seed heads form and shortly before sorghum begins to bloom. Since adult midges can move considerable distances, this practice will lead to the production of a new generation on johnsongrass throughout the general area.

On the other hand, if johnsongrass immediately surrounding the field is allowed to bloom, the midge will disperse to it from overwintering and produce a more concentrated new generation. In this case, the johnsongrass can be clipped in June, after peak midge emergence from overwintering and before first sorghum bloom (Figure 9). Some midges will survive clipping, particularly those that have completed most of their larval development before clipping. Controlled burning in place of clipping or of the clipped johnsongrass residue can increase the effectiveness of this means of depressing midge populations.

Date of Sorghum Planting

Early planting of grain sorghum is recommended in Mississippi to escape economically damaging populations of the sorghum midge. However, early planted sorghum in small acreages is occasionally severely damaged by adult midges from nearby johnsongrass stands.

We planted two sorghum types of different bloom dates to investigate the relationship of planting and bloom dates to midge populations and midge damage on early planted sorghum. The two varieties were planted at Mississippi State on May 25, 1973 and at Scott on May 30, 1973. One tenth of the acreage at each location was planted to Reliance; the other nine tenths to DeKalb E-57, which blooms ten days later.

We also investigated the effect of different planting dates on midge populations and midge damage to grain sorghum. The cardboard containers used in the johnsongrass study were placed over the seed heads of DeKalb BR-64 grain sorghum planted on four dates in 1972. We determined emergence of adult midges by the same techniques used in the johnsongrass study and made visual estimates of the percent of seed destroyed on each seed head.

Results---Reliance was in bloom at both locations during the week of July 15, at the peak of emergence of adult midges from johnsongrass. Midges were attracted to this cultivar and it incurred serious damage (Table 2). When DeKalb E-57 was in bloom during the week of July 25, few adult midges were observed on sorghum and johnsongrass in the area---most of the adult females had died after starting a new generation, the larvae of which were busy destroying seed of the Reliance sorghum. Consequently, the DeKalb E-57 sorghum developed through most of the bloom period before adult midges emerged from Reliance or possibly from johnsongrass. There was only slight damage to the main crop; however, late DeKalb E-57 tillers were severely damaged.

The incidence of adult emergence from sorghum heads and the amount of grain damage increased with each delay in planting our 1972 tests (Table 3 and Figure 9) and sorghum in bloom after mid-July was infested by large midge populations and also suffered heavy damage. Sorghum planted on April 28 (bloom June 22-July 1) suffered seed loss of less than 1 percent. Sorghum planted on May 19 (bloom July 13-22), on June 23 (bloom August 25-September 1) and on July 13 (bloom September 8-15) suffered seed losses of 15 percent, 55 percent and 98 percent, respectively.

Although johnsongrass in the test area served as the initial source of midge infestation, economically damaging populations developed within sorghum plots during the season, by midges produced in one planting infesting the next planting with its later bloom date. In large sorghum fields, this type of midge population build-up may occur when the crop is planted on several dates or when the stand does not bloom uniformly.

Table 2. Midge damage to early planted sorghums of different bloom dates, Mississippi, 1973.

Location	Planting date	Seed head damage	
		Reliance	DeKalb E-57
		--------percent--------	
Scott	5/30/73	88.7	3.8
Mississippi State	5/25/73	100.0	5.2

Reliance, inbred line (50% bloom 7/13/73, Mississippi State and 7/15/73, Scott, Mississippi).

DeKalb E-57 (50% bloom 7/21/73, Mississippi State and 7/25/73, Scott, Mississippi).

Table 3. Midge emergence and crop damage on grain sorghum planted on different dates, Oktibbeha County, Mississippi, 1972.

Planting date	Midge per seed head	Seed loss
	number	percent
April 28	Not recorded	1
May 19	167+40	15
June 23	192+17	55
July 13	311+22	98

DeKalb BR-64 grain sorghum in 38 in. rows.

Estimated.

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The Sorghum Midge In Mississippi

Errata (Page 11)

Table 4. Control of the sorghum midge with insecticides, Oktibbeha County, Mississippi, 1971.[1]

Treatment[2]			
Insecticide and formulation	**Rate**	**Seed loss per head[3]**	**Yield/ 20 heads[4]**
	(lb/A)	**(percent)**	**grams**
Ethion 4EC*	0.50	43.5 a[5]	899 a
Ethion 4EC*	0.25	44.4 ab	884 a
Phosvel 3EC	0.50	54.7 bc	817 abc
Guthion 2EC	0.50	55.5 c	894 ab
Diazinon 4EC*	0.50	57.3 cd	811 abc
Phosvel 3EC	0.25	58.0 cd	749 abc
Lannate 90% WP	0.50	61.5 cd	786 cd
Di-Syston 6EC	0.50	66.5 de	653 cd
Di-Syston 6EC	0.25	72.5 ef	662 cd
Guthion 2EC	0.25	72.9 ef	801 abc
Diazinon 4EC*	0.25	74.5 efg	852 ab
Sevin 80% WP*	0.50	77.4 fgh	676 c
Sevin 80% WP*	0.25	80.3 fghi	503 e
Malathion 57% EC*	0.25	81.0 fghi	698 bc
Cygon 2EC	0.25	83.6 ghi	481 e
Cygon 2EC	0.50	84.5 ghij	509 e
Lannate 90% WP	0.25	86.1 hij	657 cd
Malathion 57% EC*	0.25	90.9 ij	667 cd
Untreated		95.1 j	255 j

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***Material labeled for use on grain sorghum for sorghum midge control (WP = wettable powder; EC = emulsifiable concentrate).**

[1] DeKalb BR-64 planted, June 23, 1971.

[2] Insecticide spray applied when 50% of the plants were in early bloom (August 19); second application 5 days later (August 24).

[3] Damage attributed to sorghum midge.

[4] Total dry matter (head weight) at harvest (9/15/71).

[5] Means followed by the same letter are not significantly different at the .05 level of probability as determined by Duncan's New Multiple Range Test.

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MISSISSIPPI AGRICULTURAL &
FORESTRY EXPERIMENT STATION
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Mississippi State University, Mississippi State, MS 39762

Early Planting and Crop Uniformity---Early planting of grain sorghum, particularly in small fields, without regard for the midge population developing on large acreages of seedling johnsongrass and without regard for the bloom dates of sorghum varieties planted may result in severe economic loss due to midge damage. Severe midge damage may be circumvented by early planting geared to the development of midge populations on johnsongrass and to the bloom dates of the sorghum variety planted.

Our results also lead us to conclude that uniformity of planting is important to the production of sorghum because the later blooming portion of a crop may be subject to severe damage by midges produced on earlier blooming heads. These later maturing plants, upon losing their primary fruiting heads because of midge damage, put on secondary fruiting heads, tillers, that are even later in development. Thus, a vicious cycle of seed losses often begins with poor fruiting uniformity because, for all practical purposes, a new generation of adult midges develops every two weeks. Also, secondary heads often develop on sorghum soon after the seed on the primary head reach physiological maturity and this creates a problem in harvesting grain.

Insecticide Control of the Midge

Light infestations of the sorghum midge on early-planted, uniform stands of grain sorghum normally do not require insecticide control. However, in fields where midge adults are detected in large numbers on the early blooming heads, a preventive insecticide program may be needed to protect the crop during the remainder of the bloom period.

We evaluated nine insecticides for control of the sorghum midge on DeKalb BR-64 planted in Oktibbeha County on June 23, 1971 (Table 4). Rates of 0.25 and 0.50 pounds per acre in five gallons of water were tested in four replications in a randomized complete block design. Sprays were applied over-the-top of the heads with a hand-held, compressed air sprayer. Two applications were made---the first at 50 percent bloom on August 19, the second five days later on August 24. Head weight and the percentage of seed damaged per head were recorded at harvest.

Rates of insecticides ranging from 0.10 to 1.00 pounds per acre in 6.3 gallons of water were tested in 1972 using the same procedures as in the 1971 tests. DeKalb BR-64 was planted on June 28 and the first insecticide applications were made on September 5 when 10 percent of the crop was in early bloom. These were followed by applications on September 9 and September 13. Only the percentage of seed damaged per head was recorded.

Results---None of the test materials gave satisfactory control of the sorghum midge in 1971.

Table 4. Control of the sorghum midge with insecticides, Oktibbeha County, Mississippi, 1971.[1]

Treatment[2]			
Insecticide and formulation	**Rate**	**Seed loss per head[3]**	**Yield/ 20 heads[4]**
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Lannate 90% WP	0.50	61.5 abcd	786 abcd
Di-Syston 6EC	0.50	66.5 abcde	653 abcd
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Diazinon 4EC*	0.25	74.5 abcdefg	852 ab
Sevin 80% WP*	0.50	77.4 abcdefgh	676 abc
Sevin 80% WP*	0.25	80.3 abcdefghi	503 abcde
Malathion 57% EC*	0.25	81.0 abcdefghi	698 abc
Cygon 2EC	0.25	83.6 abcdefghi	481 abcde
Cygon 2EC	0.50	84.5 abcdefghij	509 abcde
Lannate 90% WP	0.25	86.1 abcdefghij	657 abcd
Malathion 57% EC*	0.25	90.9 abcdefghij	667 abcd
Untreated		95.1 abcdefghij	255 abcdefghij

***Material labeled for use on grain sorghum for sorghum midge control (WP = wettable powder; EC = emulsifiable concentrate).**

[1] DeKalb BR-64 planted, June 23, 1971.

[2] Insecticide spray applied when 50% of the plants were in early bloom (August 19); second application 5 days later (August 24).

[3] Visual estimate of damage.

[4] Total dry matter (head weight) at harvest (9/15/71).

[5] Means followed by the same letter are not significantly different at the .05 level of probability as determined by Duncan's new multiple range test.

Table 5. Control of the sorghum midge with insecticides, Oktibbeha County, Mississippi, 1972.[1]

Insecticide and formulation[2]	Rate	Seed loss per head[3]
	(lb/A)	percent
Diazinon 4EC*	0.10	17.7 a[4]
Phosvel 3EC	0.25	19.7 a
Zolone 3EC	0.50	19.9 a
Ethion 4EC*	0.25	20.4 a
Phosvel 3EC	0.50	20.7 a
Diazinon 4EC*	0.25	21.6 a
Meta-Systox-R 3EC	0.50	22.6 a
Sevimol 4EC*	1.00	24.3 ab
Ethion 4EC*	0.10	25.0 ab
Zolone 3EC	0.25	26.2 abc
Di-Syston 6EC	0.50	29.4 bc
Sevin 80% WP*	1.00	32.2 bc
Di-Syston 6EC	0.25	35.9 cde
Meta-Systox-R 3EC	0.25	45.4 def
Cygon 2EC	0.10	45.9 ef
Cygon 2EC	0.25	48.0 f
Untreated		70.1 g

***Material labeled for use on sorghum for midge control.**

[1] DeKalb BR-64 planted, June 28, 1972.

[2] Insecticide applied on September 5 when 10% of the crop was initiating bloom, and on September 9 and 13.

[3] Visual estimate of damage. Means followed by the same letter are not significantly different at the .05 level of probability as determined by Duncan's new multiple range test.

However, the first spray was applied when 50 percent of the plants were in heavy bloom and the midge population was very heavy. Ethion was the most effective insecticide. Other treatments with less than 60 percent seed loss in order of effectiveness were: Phosvel, 0.50 pounds/A; Guthion, 0.50 pounds/A; diazinon, 0.50 pounds/A and Phosvel, 0.25 pounds/A (Table 4).

All treated plots had significantly less seed damage than did the untreated plot in 1972 (Table 5). Diazinon, Phosvel, Zolone and ethion were the most effective insecticides.

Inadequate control of the sorghum midge results from improper timing of applications, too few applications and the use of insecticides that are not effective. Our results indicate that insecticide applications may be timed to protect the sorghum crop from midge damage if an effective insecticide is first applied when midge adults are first detected at levels of two or three per head when the crop is in early bloom (10 percent of the crop in bloom). The sorghum should complete blooming in five to ten days if it is in a uniform stand, thus two or three insecticide applications on a three- to four-day schedule may be required.

Minimum Effective Rates---Effective insecticides may be applied at rates much higher than needed for satisfactory midge control. The excessive use of insecticides is costly and may be harmful to the environment.

We found no significant differences between the higher and lower rates of diazinon, Phosvel, Zolone and ethion in our 1972 tests. Therefore, the lower rates may be used for effective midge control. This would reduce the cost of insecticide per application, thereby making it more practical to increase the number of applications in a spray schedule. An increase in the number of applications normally would result in a longer and more effective period of plant protection.

Conclusions

Tillage practices alone do not appreciably affect emergence of adult sorghum midges from overwintering diapause. About the same number emerge from fields where sorghum residue is exposed on the soil surface through the winter and where the residue is plowed under in early spring. However, when wheat or other small grains are seeded after the sorghum harvest, a favorable overwintering habitat is provided and adult sorghum midge emergence is significantly greater. Also, harvest of the small grain delays sorghum planting in the spring. Thus, the likelihood of midge damage to grain sorghum planted behind a grain crop is greater.

The dispersal of adult sorghum midges from overwintering sites appears to be dependent on the availability of johnsongrass in bloom. The relationship of johnsongrass to the sorghum midge can best be explained as that of a reservoir or alternate host capable of sustaining the insect in relatively low numbers.

The long period of adult emergence from overwintering results in overlapping of generations of the sorghum midge on johnsongrass and sorghum. The low numbers of midges that emerge from scattered johnsongrass along field borders indicate that midge populations produced on this host are not likely to cause economic damage to large fields of uniformly-fruiting grain sorghum.

This may not be the case where sorghum is grown in small fields, because there would be less dilution effect (midge numbers per sorghum head) as a result of the smaller ratio of cultivated area to johnsongrass infested area.

Early planting of grain sorghum is recommended in Mississippi to escape economically damaging populations of the sorghum midge. However, early planting of grain sorghum, particularly in small fields, without regard for the midge population developing on large acreages of heading johnsongrass and without regard for the bloom dates of sorghum varieties planted may result in severe economic loss due to midge damage.

Sorghum fields that do not fruit uniformly normally suffer severe midge damage. The later blooming portion of the crop is subject to attack by midges produced on earlier blooming heads. These later maturing plants lose their primary fruiting heads because of midge damage and put on tillers that are even later in development. Thus, a vicious cycle of seed losses often begins with poor fruiting uniformity because, for all practical purposes, a new generation of adult midges develops every two weeks.

Management and Crop Production Practices for Control of the Sorghum Midge---Johnsongrass eradication to prevent its use as a host plant for the midge is not practical in Mississippi but management of this host plant in and around sorghum fields can be beneficial. If johnsongrass immediately surrounding the field is allowed to bloom, the midge will disperse to it from overwintering and produce a concentrated new generation. Then the johnsongrass can be clipped in June, after peak midge emergence from overwintering and before first sorghum bloom. Some midges will survive clipping but controlled burning in place of clipping or of the clipped johnsongrass residue can increase the effectiveness of this means of depressing midge populations.

Timeliness of planting, selection of varieties and crop production practices designed to assure uniformity of fruiting all are important to minimizing midge damage as a limiting factor in grain sorghum production.

Severe midge damage may be circumvented by early planting geared to the development of midge populations on johnsongrass and to the bloom dates of the sorghum variety planted.

The more important crop production practices for achieving uniformity of fruiting include crop rotation, selection of land, proper seedbed preparation, proper application of recommended fertilizers, proper seeding rate and uniform planting. All of these directly affect uniform germination and growth of seedlings, without which uniformity of crop maturity cannot be attained.

Insecticide Control of the Midge---Failure to control the sorghum midge with management and production practices necessitates a preventive insecticide program to protect the crop. The crop should be observed closely from the time it starts to bloom (yellow anthers exposed) until flowering is practically completed. When as many as two or three adult midges are found per grain head, treatment should begin.

Control of the midge requires the application of an effective insecticide at this time. Continuing treatment at three- to four-day intervals until the crop stops blooming may be necessary. Diazinon, Phosvel, Zolone, and ethion have been the most effective insecticides in our tests.

Minimum Effective Rates of Insecticides---Low dosages of these insecticides can be used to effectively control the sorghum midge and dosages higher than those required should be avoided. Excessive use of insecticides will add unnecessarily to the cost of the spray program and may build up resistance in insect populations. Judicious use of insecticides and sound management can include the conservation of natural enemies of the sorghum midge and other insect pests on grain sorghum.

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Costs of On-Farm Rice Drying-Storage Facilities in Mississippi, 1975

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Summary and Conclusions

Acreage of rice harvested in Mississippi increased from 62,000 in 1973 to 108,000 in 1974. There was another substantial increase in 1975, with the latest estimate being 170,000 acres.

New producers and established producers who expand their rice acreage are faced with the problem of whether to dry and store their rice at commercial facilities or to build on-farm drying-storage facilities. Although a farmer can easily determine commercial charges for rice drying and storage, it is much more difficult to determine the costs of owning and operating an on-farm facility.

This study was undertaken to provide farmers with the cost of owning and operating various sizes of on-farm rice drying-storage facilities. Specifically, the report includes information on: (1) capital investment requirements; (2) per bushel costs of owning and operating facilities of different sizes; and (3) other economic considerations.

Data were developed for facilities with storage capacities of about 15,000, 30,000, 40,000, 60,000, 80,000 and 150,000 bushels. The estimated investment required for these facilities is approximately $24,000, $37,000, $47,000, $66,000, $86,000, and $150,000, respectively.

Cost of owning and operating each of the facilities was estimated for three levels of utilization---100 percent, 75 percent, and 50 percent. At the 100 percent level of utilization, total costs ranged from 32 cents per bushel for the 15,000 bushel facility to about 19 cents per bushel for the 150,000 bushel facility. Corresponding costs at the 50 percent level of utilization were 58 cents and 32 cents.

Assuming an average charge of 50¢ per bushel for drying rice and storing it for five months at commercial facilities, the results of this analysis indicate that on-farm drying and storage is an economical alternative. Only the 15,000 bushel on-farm drying-storage facility, utilized at one half its capacity, had a cost greater than 50¢ per bushel.

In addition to evaluating the comparative costs of commercial drying and storage and on-farm drying and storage, farmers should also consider other factors that have a bearing on the feasibility of owning a rice drying-storage facility. The following are items that need to be considered: (1) As a means of maintaining a high level of utilization, what are the opportunities for using the rice drying-storage facility for storing other grains? (2) Is adequate management time available to properly oversee the drying-storage operation? Damaged rice can quickly wipe out any extra income that might be realized. (3) Are commercial storage facilities available at a reasonable charge and at a reasonable distance from the farm? (4) Do average seasonal rice price movements provide opportunities for economic gain from rice storage? (5) What is the opportunity cost of storing rice?

Cost of On-Farm Rice Drying-Storage Facilities in Mississippi, 1975

With the lifting of marketing quotas and acreage restrictions, the acreage of rice harvested in Mississippi soared from 62,000 in 1973 to 108,000 in 1974, a 74 percent increase. There was another substantial increase in 1975, with the latest estimate being 170,000 acres.

Much of this acreage is accounted for by new producers. Although they may have suitable land, new producers generally lack many of the basic inputs required for rice production. In addition to these input requirements, new producers and old producers who expand their rice acreage have to consider the very important question of where to dry and store the rice produced on the new acreage. They have two alternatives, either dry and store at a commercial facility or at their on-farm facility.

The cost of drying and storing in public facilities is relatively easy to determine. However, if on-farm drying-storage is seriously considered, the cost information required to make a decision is much more complex. To determine which of the two alternatives is most profitable, growers need detailed information on capital investment requirements and on fixed and variable costs of owning and operating on-farm rice drying-storage facilities.

Objectives

As an aid to farmers faced with the storage decision, the objective of this study is to provide detailed cost estimates for various sizes of on-farm rice drying-storage facilities. The report includes: (1) capital investment requirements; (2) per bushel cost of owning and operating facilities of different sizes; and (3) other economic considerations.

Methods and Procedure

Capital investment requirements, including cost of erection, were obtained from two manufacturers of on-farm rice drying-storage facilities in Mississippi.

Buildings, including metal bins and foundations, were depreciated at a straight-line rate of 4 percent.

Equipment, including drying, conveying and electrical, was depreciated at a straight-line rate of 6.7 percent.

Cost of insuring buildings and equipment was calculated using a combined premium for fire and extended coverage of $8.00 per $1,000 valuation---rates were obtained from insurance agents.

Taxes were calculated using an assessed valuation of 30 percent of original cost and a rate of 63 mills ---data were obtained from tax assessors.

Interest on investment in buildings and equipment was charged at 8 percent of one-half of the original cost. Interest on land investment was charged at 8 percent of total value, with land valued at $600 per acre.

Labor requirements were obtained from rice farmers having on-farm drying-storage systems, and include labor required for unloading, drying, turning, checking bins and loading out---labor for hauling to the storage site was charged to production. An hourly wage rate of $2.30, including fringe benefits, was used.

Electricity requirements were determined in consultation with power company representatives and by use of appropriate engineering formulae. Total horsepower hours were calculated for drying, aerating and handling rice and were converted to kwh requirements. Total kwh requirements were calculated by multiplying the volume of each facility by .25 (the kwh requirement per bushel of rice on a dry weight basis). The electricity cost for each facility was then determined by multiplying total kwh requirements by 4 cents and adding a prorated charge of $4.80 per kilowat (based on connected horsepower).

Fuel requirements were determined by multiplying the volume of each facility by .06 gallons, the amount of butane required to dry one bushel of rice (dry weight basis). Fuel cost was then calculated by multiplying the number of gallons of butane required by 34 cents.

Estimates of building and equipment repair costs were derived in consultation with manufacturers and field representatives of on-farm rice drying-storage facilities. Total repair costs over the 25-year life expectancy were estimated to be 10 percent of investment requirements for buildings and 60 percent of investment requirements for equipment. The totals were prorated over 25 years and then converted to repair costs per bushel per year.

Costs of fire and extended coverage insurance for stored rice were estimated under the assumption that one half of the crop would be sold after one month of storage and that the remainder would be stored for five months. Costs were based on a premium charge of $9.90 per $1,000 valuation.

Fumigation costs were obtained from an insect and pest control firm.

Interest on operating capital was estimated using an 8 percent interest rate and a loan period of 5 months.

Capital Investment

A new on-farm rice drying-storage facility is a major financial investment. Therefore, cost information for facilities of various sizes is essential for farm operators considering the purchase of such a facility.

Most on-farm rice drying-storage facilities in Mississippi are formed by bins arranged in a circle. Our estimates of capital requirements are for on-farm drying-storage facilities of this design, with storage capacities of about 15,000, 30,000, 40,000, 60,000, 80,000, and 150,000 bushels.

Storage Bins---Estimated capital requirements for grain bins, drying floor, catwalk, ladders, foundations and dump pits are about $13,000, $23,000, $30,000, $44,000, $58,000 and $103,000 for facilities of 15,000, 30,000, 40,000, 60,000, 80,000 and 150,000 bushels capacity, respectively (Table 1). These items accounted for the largest proportion of investment in buildings and equipment, varying from about 55 percent for the 15,000 bushel facility to 69 percent for the 150,000 bushel facility.

Equipment---Equipment costs include driers, conveyors, and electrical panels. These costs varied from about $11,000 for the smallest facility to $47,000 for the largest facility (Table 1). Equipment costs accounted for approximately 45 and 31 percent, respectively, of the total capital investment for the smallest and the largest facility.

Investment requirements for equipment do not include grain stirring devices. These can be added for around $3,000 to $3,600 per bin depending upon bin diameter. Since it is not necessary to install them in every bin, the total cost of adding them to the 15,000 bushel facility would be around $3,000 (installed in only one bin). Assuming that they would be installed in two bins for the larger facilities, the added investment requirement would range from $6,000 to $7,200.

Land---Site or land cost was included as a part of total capital investment. Plot size used in estimating this cost varied from one-fourth to three-fourths of an acre depending on facility size.

Total Capital Investment---Total investment costs ranged from less than $25,000 for the smallest facility to over $150,000 for the largest facility. Investment cost per bushel of storage capacity ranged from $1.63 for the 15,000 bushel facility to $1.00 for the 150,000 bushel facility (Table 1).

Since the storage capacities developed in this analysis will not satisfy every farmer's storage requirements, we derived a capital investment curve from the costs presented in Table 1 (Figure 1). From this curve it is possible to approximate the investment in facilities of other sizes. For example, a farmer needing 50,000 bushels of storage capacity could expect an investment cost of $56,000 or $1.13 per bushel.

Total Costs

We estimated total costs for three levels of utilization (100, 75 and 50 percent of total storage capacity). Results are reported in Appendix Tables A, B, and C. Per unit costs were determined by dividing total cost by annual volume at each level of utilization (Tables 2, 3 and 4). *All unit costs are based solely on once-a-year use of storage facilities for drying and storing of rough rice only.*

Fixed Costs---Fixed costs for facilities of all sizes range from 61 percent of total cost when facilities are used to capacity to about 70 percent when used at 50 percent of capacity. Depreciation and interest on investment are the largest items of fixed cost, together accounting for about 77 percent of all fixed

Table 1. Estimated total capital investment for on-farm rice drying-storage facilities, selected capacities, Mississippi, 1975.

Item	Capacity in bushels[1] 15,000	 30,000	 40,000	 60,000	 80,000	 150,000
			--------Dollars--------			
Storage units:						
Bins[2]	8,150	16,733	21,795	33,694	45,231	81,120
Foundations[3]	4,760	6,499	7,872	9,875	12,857	21,810
Sub-total	13,270	23,232	29,667	43,569	58,088	102,930
Equipment:						
Drying[4]	3,378	4,802	6,870	9,705	13,816	28,050
Conveying[5]	4,175	5,227	5,607	6,390	6,788	7,740
Electrical[6]	3,477	3,939	4,656	5,736	6,908	11,280
Sub-total	11,030	13,968	17,133	21,831	27,512	47,070
Land[7]	138	138	138	275	275	413
Total investment cost	24,438	37,338	46,938	65,675	85,875	150,413
Cost/bushel	1.63	1.24	1.17	1.09	1.07	1.00

[1] Capacity as used in this analysis refers to dry weight capacity of the storage bins when the rice is leveled off at the roof line (not coned). Since the green (paddy) rice is dried progressively through harvest, no extra storage is included to allow for green weight volume. Also, since each bin includes a heater and humidistat and thermostat control mechanism, an extra bin is not required for turning.

[2] Includes drying floor, catwalk, and inside and outside ladders.

[3] Includes dump pit, center slab, and truck drive.

[4] Includes fans, heater, transitions, and humidistat and thermostat controls. Does not include propane tank and hook-up.

[5] Does not include stirring devices or power sweeps, but does include portable bin sweep. Cost of stirring devices range from about $3,000 to $3,600 per bin depending on diameter. These devices, if desired, would have to be installed only in the bins used for drying.

[6] Does not include power lines to site.

[7] Does not include the cost of site preparation (leveling).

costs. Average fixed costs ranged from about 12 cents per bushel at 100 percent utilization for the largest facility to nearly 39 cents at 50 percent utilization for the smallest facility (Tables 2 and 4).

Variable Costs---Labor, electricity, and drier fuel are the major variable cost items. These items combined account for about two-thirds of total variable costs. At the 100 percent level of utilization, average variable costs range from about 13 cents per bushel for the 15,000 bushel facility to about 7 cents per bushel for the 150,000 bushel facility (Table 2).

Total Cost---Average total costs for the 15,000 bushel facility range from 32¢ to 58¢ per bushel for the 100 percent and 50 percent level of utilization, respectively (Tables 2 and 4). The corresponding range in cost for the 150,000 bushel facility at these volume levels is 19 cents and 32 cents. Based on 75 percent utilization, average total costs for the smallest, and the largest facilities are approximately 40 cents and 23 cents per bushel respectively (Table 3).

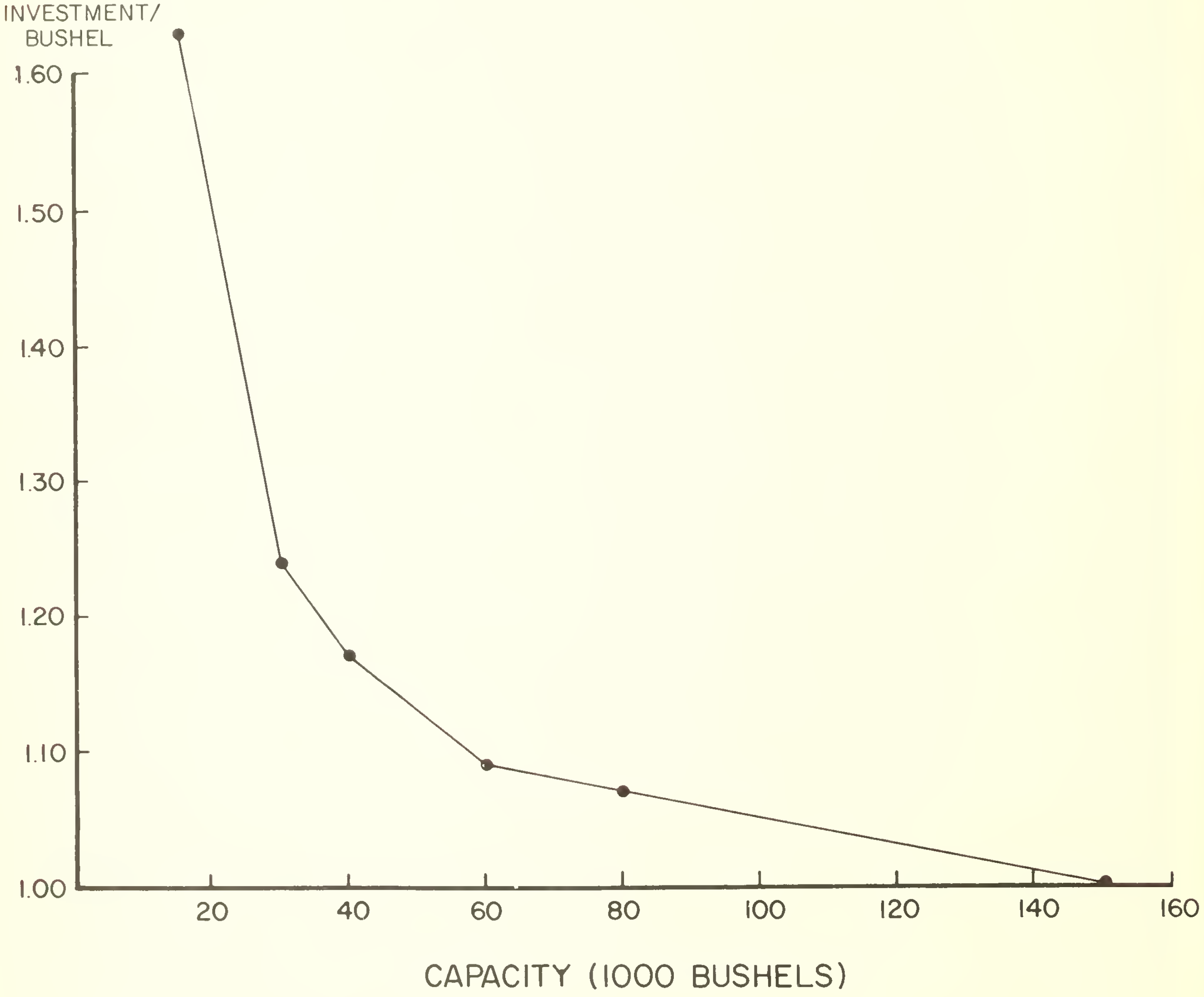


Figure 1. Capital investment curve for on-farm rice drying-storage facilities, Mississippi, 1975.

Table 2. Estimated average cost per bushel of owning and operating on-farm rice drying-storage facilities, selected capacities, 100 percent utilization, Mississippi, 1975.

	Total storage capacity in bushels					
Cost item	15,000	30,000	40,000	60,000	80,000	150,000
	--------Cents per bushel--------					
Fixed costs:						
Bldg. depreciation[1]	3.54	3.10	2.97	2.91	2.90	2.75
Equip. depreciation[2]	4.90	3.10	2.86	2.42	2.29	2.09
Insurance - Bldg. and equip.[3]	1.30	0.99	0.93	0.87	0.86	0.80
Interest on investment[4]	6.55	5.00	4.71	4.40	4.31	4.02
Taxes[5]	3.06	2.34	2.21	2.06	2.02	1.89
Total fixed cost	19.35	14.53	13.68	12.66	12.38	11.55
Variable costs:						
Direct labor[6]	4.91	2.92	2.41	1.92	1.67	1.32
Electricity[7]	1.66	1.59	1.57	1.52	1.50	1.43
Drier fuel[8]	2.04	2.04	2.04	2.04	2.04	2.04
Bldg. repairs[9]	0.35	0.31	0.29	0.29	0.28	0.28
Equip. repairs[9]	1.77	1.11	1.03	0.88	0.83	0.75
Insurance on rice[10]	1.05	1.05	1.05	1.05	1.05	1.05
Fumigation[11]	0.68	0.34	0.28	0.21	0.17	0.10
Interest on operating capital[12]	0.41	0.31	0.29	0.26	0.25	0.23
Total variable cost	12.87	9.67	8.96	8.17	7.79	7.20
Total cost	32.22	24.20	22.64	20.83	20.17	18.75

[1] Building refers to storage bins and foundation. Depreciated on a straight-line rate of 4 percent (25 years).

[2] Includes all drying, conveying, and electrical equipment. Depreciated on a straight-line rate of 6.7 percent (15 years).

[3] Includes fire and extended coverage. Cost is based on a premium charge of $8.00 per $1,000 valuation.

[4] Calculated at 8 percent of half the original cost (new) of building and equipment, and 8 percent of the total cost of land.

[5] Based on 30 percent of original value (new) and a millage rate of 63 ($63 per $1,000 valuation).

[6] Includes labor for unloading, drying, turning, checking bins, and loading out. Labor cost is based on $2.30 per hour.

[7] Based on a power consumption of .25 kwh per bushel and 4¢ per kwh plus a prorated charge of $4.80 per kilowatt (based on connected horsepower).

[8] Based on a fuel consumption of .06 gallons of butane-propane per bushel and a cost per gallon of 34¢.

[9] Based on a total repair cost over the 25 year life of buildings (storage bins) of 10 percent of original cost of buildings and 60 percent of original cost of equipment. Total repairs were prorated equally over 25 years.

[10] Included fire and extended coverage and is based on $9.90 per $1,000 valuation. It was assumed that this coverage would be required for only 5 months. It was further assumed that one-half of the crop was sold after one month (to pay off crop loans), and that the balance was held for the full five months.

[11] Based on a commercial rodent and insect pest control contract.

[12] Based on a rate of 8 percent and a loan period of five months.

Table 3. Estimated average cost per bushel of owning and operating on-farm rice drying-storage facilities, selected capacities, 75 percent utilization, Mississippi, 1975.

Cost item	Total storage capacity in bushels					
	15,000	30,000	40,000	60,000	80,000	150,000
	--------Cents per bushel--------					
Fixed costs:						
Bldg. depreciation*	4.72	4.13	3.96	3.88	3.87	3.66
Equip. depreciation*	6.53	4.14	3.81	3.23	3.06	2.79
Insurance - Bldg. and equip.*	1.73	1.33	1.25	1.16	1.14	1.07
Interest on investment*	8.74	6.66	6.27	5.86	5.74	5.36
Taxes*	4.08	3.12	2.94	2.75	2.70	2.52
Total fixed cost	25.80	19.38	18.23	16.88	16.51	15.40
Variable costs:						
Direct labor*	6.24	3.58	2.91	2.25	1.92	1.45
Electricity*	1.88	1.78	1.76	1.69	1.66	1.58
Drier fuel*	2.04	2.04	2.04	2.04	2.04	2.04
Bldg. repairs*	0.47	0.41	0.40	0.39	0.38	0.37
Equip. repairs*	1.88	1.19	1.10	0.93	0.88	0.80
Insurance on rice*	1.05	1.05	1.05	1.05	1.05	1.05
Fumigation*	0.68	0.34	0.34	0.25	0.20	0.11
Interest on operating capital*	0.47	0.34	0.32	0.28	0.27	0.24
Total variable cost	14.71	10.73	9.92	8.88	8.40	7.64
Total cost	40.51	30.11	28.15	25.76	24.91	23.04

***See footnotes to Table 2.**

Table 4. Estimated average cost per bushel of owning and operating on-farm rice drying-storage facilities, selected capacities, 50 percent utilization, Mississippi, 1975.

	Total storage capacity in bushels					
Cost item	15,000	30,000	40,000	60,000	80,000	150,000
	--------Cents per bushel--------					
Fixed costs:						
Bldg. depreciation*	7.08	6.19	5.94	5.81	5.81	5.49
Equip. depreciation*	9.80	6.21	5.71	4.85	4.59	4.19
Insurance - Bldg. and equip.*	2.59	1.99	1.87	1.75	1.71	1.60
Interest on investment*	13.10	9.99	9.41	8.79	8.62	8.04
Taxes*	6.12	4.69	4.42	4.12	4.04	3.78
Total fixed cost	38.69	29.04	27.35	25.32	24.77	23.10
Variable costs:						
Direct labor*	8.89	4.91	3.91	2.91	2.41	1.72
Electricity*	2.31	2.17	2.14	2.04	1.99	1.86
Drier fuel*	2.04	2.04	2.04	2.04	2.04	2.04
Bldg. repairs*	0.71	0.62	0.60	0.58	0.57	0.55
Equip. repairs*	2.36	1.49	1.37	1.16	1.10	1.00
Insurance on rice*	1.05	1.05	1.05	1.05	1.05	1.05
Fumigation*	1.01	0.51	0.47	0.34	0.28	0.16
Interest on operating capital*	0.61	0.42	0.38	0.33	0.31	0.28
Total variable cost	18.98	13.21	11.96	10.45	9.75	8.66
Total cost	57.67	42.25	39.31	35.77	34.52	31.76

***See footnotes to Table 2.**

Economies of Size

Generally, facility size and costs per bushel are inversely related. This does not mean, however, that a larger facility will always result in a lower unit cost or is always the size of facility that will best serve an individual farmer's needs. Using a larger facility at substantially less than capacity is more costly than using a smaller facility at capacity. For example, an 80,000 bushel facility used at 75 percent of capacity would cost a farmer about 4 cents per bushel more than a 60,000 bushel facility operated at 100 percent capacity (Figure 2). Consequently, construction of a facility that would just accomodate his expected production would be more advantageous to the farmer.

Joint-Use Storage---Joint-use storage offers a potential for lowering costs by increasing utilization levels. Two ways of accomplishing joint use are:

1. When only rice is dried and stored, varieties with different maturity dates may be planted; thus extending the harvesting and drying period. The major shortcoming of this approach to "spreading the overhead" is that it limits the farmer's sale date alternatives for that part of his rice crop in excess of his bin capacity.

2. Other grains may be stored when the bins do not contain rice. By selling part of his rice soon after it is dried, the farmer can provide space for soybean storage. And, on farms where wheat is part of the cropping system, rice drying-storage facilities may be used for wheat storage in the summer. However, when no drying of soybeans and wheat is required, the variable cost of storing them on the farm needs to be carefully compared to the cost of storage in a local grain elevator.

Other Economic Considerations

Important as it is, cost is only one of many factors that determine whether on-farm drying and storage of rice is feasible. Some are easy to isolate and define; others are more elusive and abstract. While they do not exhaust the possible list, some other factors that need to be considered are:

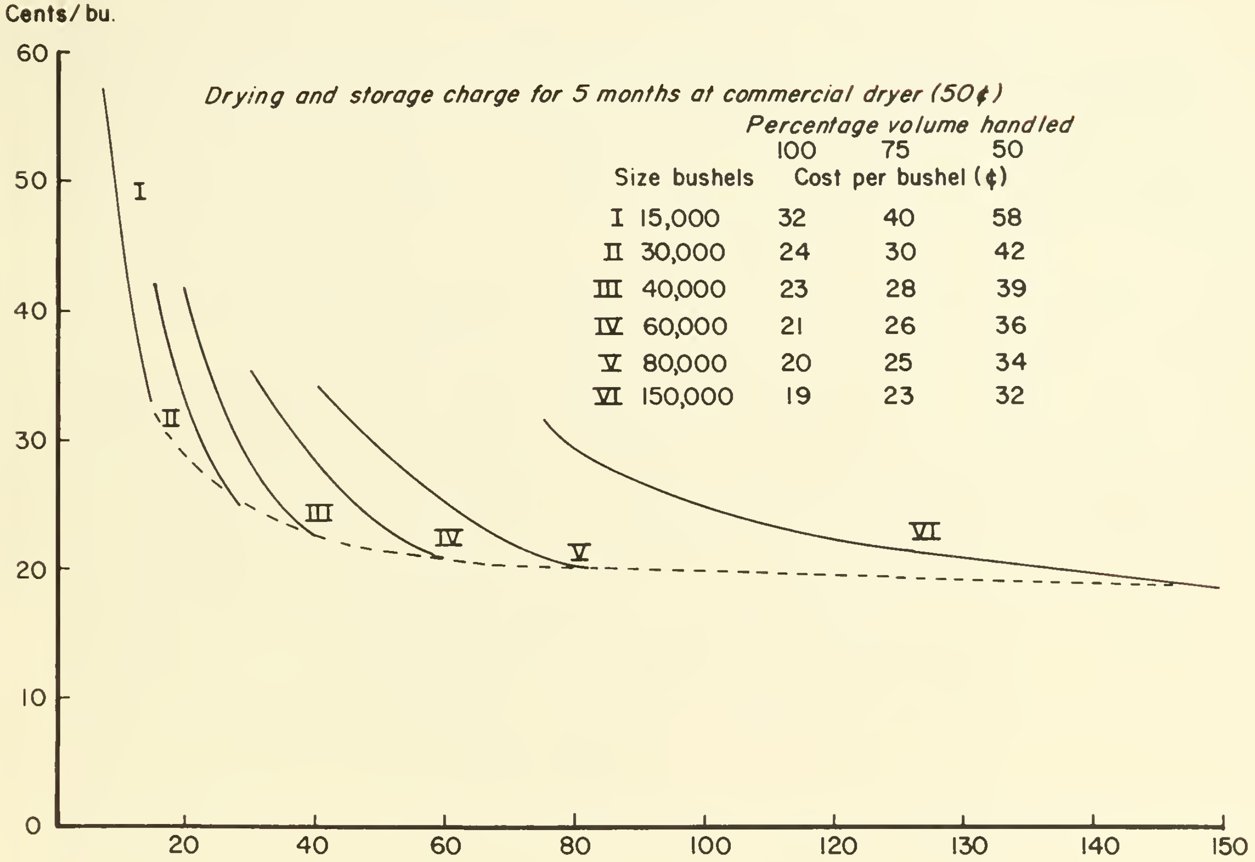
Quality Control---The market value of rough rice is affected by the presence of red rice, chalky kernels, broken kernels, heat damaged kernels, and objectionable seed. The physical operation of drying and storage affects value mainly in terms of milling yield and heat damaged kernels, since the other factors are present before drying and storage begin. Thus, a major factor that must be considered by a farmer contemplating purchase of an on-farm rice drying-storage facility is quality control. Even though on-farm drying-storage may provide farmers with opportunities for economic gain, poor drying and quality control can quickly wipe out any extra income that might be realized.

Hauling---Although the cost of hauling rice from the field to a commercial facility usually will exceed the cost of hauling it to an on-farm facility, each farmer needs to determine the relative hauling costs peculiar to his own situation. An important factor governing his decision is whether the commercial facility is one to which he will deliver his rice after it has been stored on the farm.

Delays---A non-measurable benefit to the rice grower with an on-farm drying-storage facility is avoiding unloading delays and the risk of being "shut off" at commercial dryers. During the peak of the harvest season long lines of trucks waiting to be unloaded are not an uncommon sight at commercial rice dryers. Length and frequency of delays depend largely upon the number and efficiency of commercial dryers and on harvesting conditions in the production area.

Generally, commercial dryers do an excellent job; however, local situations sometimes become serious. If delays are too long, the farmer soon has all of his trucks and rice buggies loaded and has to stop combining. An aggravating situation then becomes a serious and sometimes costly situation. Rice left in the field beyond its optimum stage of maturity can have poorer milling yields which means a lower rough rice price to the farmer. Delays can also cause serious economic losses in terms of lowered production if they result in failure to complete the harvest because of adverse weather.

Seasonal Movement of Rice Prices---The prices that farmers receive for rough rice generally are lowest in September (the usual harvest month), increase as the marketing year progresses and tend to peak in the following February. However, prices do not always rise. Examination of price changes from September to February for each of the eleven crop years beginning with the 1964 harvest reveals one year with no price change, three years in which prices decreased and seven years with price increases. Moreover, the average price increase from September to February for these eleven crops did not exceed the accumulated cost of commercial storage at 4 cents per bushel per month. Significantly, the September to February price in-



Drying and storage charge for 5 months at commercial dryer (50¢)

	Size bushels	*Percentage volume handled* 100	75	50
		Cost per bushel (¢)		
I	15,000	32	40	58
II	30,000	24	30	42
III	40,000	23	28	39
IV	60,000	21	26	36
V	80,000	20	25	34
VI	150,000	19	23	32

Figure 2. Average cost curves for on-farm rice drying and storage facilities of specified size, Mississippi, 1975.

crease exceeded accumulated commercial storage costs in only three of the eleven years. Unless these price relationships change, it would be to the advantage of the farmer with on-farm rice drying-storage facilities to sell his rice early and spread his overhead cost by storing other fall-harvested grains.

Opportunity Cost

Even when the average seasonal price movement provides a farmer the opportunity for potential gain from price appreciation, he must still consider the cost of owning rice while it is in storage. If he does not sell as soon as the rice is dried, he forgoes returns that could be obtained had the money been invested elsewhere. Assuming an interest rate of 8 percent and rice priced at $4.25 per bushel, the opportunity cost of storing rice is nearly 3 cents per bushel per month.

Comparative Cost of On-Farm and Commercial Storage

If commercial drying and storage facilities are within reasonable hauling distance, the farmer has the alternative of having his rice dried off-farm. Likewise, the commercial rice dryer can also store his rice; thus, making it possible to take advantage of any seasonal price gains. Assuming a 25 cents per bushel charge for drying, 20 cents for 5-months storage (4 cents per bushel per month) and 5 cents per bushel for hauling, the total cost of drying-storage at a public facility would be 50 cents per bushel.

The net gain from on-farm drying-storage is the difference between the cost of public drying-storage (including hauling expense) and the cost of drying-storage on the farm. The per bushel cost of on-farm drying-storage of rice is lower for facilities of each size included in our study, *when the facilities are used to capacity* (Figure 2). Cost of drying-storage in the five largest facilities is lower than commercial charges, even when utilization is substantially below capacity. For example, the per bushel cost of drying rice and storing it on the farm for five months is 41 cents for the 40,000 bushel facility used at only 50 percent of capacity---nine cents less than our estimates of commercial charges.

Investment Credit and Depreciation

Special investment credit and depreciation allowances should also be considered in making the decision of whether to dry and store rice on-farm or at a commercial rice dryer.

Appendix Tables

Table A. Estimated total cost of owning and operating on-farm rice drying-storage facilities, selected capacities, 100 percent utilization, Mississippi, 1975.

Cost item	15,000	30,000	40,000	60,000	80,000	150,000
	Total storage capacities in bushels					
	--------Dollars--------					
Fixed costs:						
Bldg. depreciation*	531	929	1,187	1,743	2,324	4,117
Equip. depreciation*	735	931	1,142	1,455	1,834	3,138
Insurance - Bldg. and equip.*	194	298	374	523	685	1,200
Interest on investment*	983	1,499	1,883	2,638	3,446	6,033
Taxes*	459	703	884	1,236	1,618	2,835
Total fixed cost	2,902	4,360	5,470	7,595	9,907	17,323
Variable costs:						
Direct labor*	736	874	964	1,150	1,336	1,978
Electricity*	248	476	627	911	1,195	2,147
Drier fuel*	306	612	816	1,224	1,632	3,060
Bldg. repairs*	53	93	119	174	233	412
Equip. repairs*	265	335	411	524	660	1,129
Insurance on rice*	158	315	420	630	840	1,575
Fumigation*	102	102	112	129	138	147
Interest on operating capital*	62	94	116	158	201	348
Total variable cost	1,930	2,901	3,585	4,900	6,235	10,796
Total cost	4,832	7,261	9,055	12,495	16,142	28,119

*See footnotes to Table 2 (text).

Table B. Estimated total cost of owning and operating on-farm rice drying-storage facilities, selected capacities, 75 percent utilization, Mississippi, 1975.

Cost item	Total storage capacity in bushels					
	15,000	30,000	40,000	60,000	80,000	150,000
	--------Dollars--------					
Fixed costs:						
Bldg. depreciation*	531	929	1,187	1,743	2,324	4,117
Equip. depreciation*	735	931	1,142	1,455	1,834	3,138
Insurance - Bldg. and equip.*	194	298	374	523	685	1,200
Interest on investment*	983	1,499	1,883	2,638	3,446	6,033
Taxes*	459	703	884	1,236	1,618	2,835
Total fixed cost	2,902	4,360	5,470	7,595	9,907	17,323
Variable costs:						
Direct labor*	702	805	874	1,012	1,150	1,633
Electricity*	211	401	527	761	995	1,772
Drier fuel*	230	459	612	918	1,224	2,295
Bldg. repairs*	53	93	119	174	233	412
Equip. repairs*	212	268	329	419	528	903
Insurance on rice*	118	236	315	472	630	1,181
Fumigation*	76	76	102	111	120	129
Interest on operating capital*	53	78	96	128	162	276
Total variable cost	1,655	2,416	2,974	3,995	5,042	8,601
Total cost	4,557	6,776	8,444	11,590	14,949	25,924

*See footnotes to Table 2 (text).

Table C. Estimated total cost of owning operating on-farm rice drying-storage facilities, selected sizes, 50 percent utilization, Mississippi, 1975.

	Total storage capacity in bushels					
Cost item	15,000	30,000	40,000	60,000	80,000	150,000
			--------Dollars--------			
Fixed costs:						
Bldg. depreciation*	531	929	1,187	1,743	2,324	4,117
Equip. depreciation*	735	931	1,142	1,455	1,834	3,138
Insurance - Bldg. and equip.*	194	298	374	523	685	1,200
Interest on investment*	983	1,499	1,883	2,638	3,446	6,033
Taxes*	459	703	884	1,236	1,618	2,835
Total fixed cost	2,902	4,360	5,470	7,595	9,907	17,323
Variable costs:						
Direct labor*	667	736	781	874	964	1,288
Electricity*	173	326	427	611	795	1,397
Drier fuel*	153	306	408	612	816	1,530
Bldg. repairs*	53	93	119	174	233	412
Equip. repairs*	177	223	274	349	440	753
Insurance on rice*	79	158	210	315	420	788
Fumigation*	76	76	94	102	112	120
Interest on operating capital*	46	63	76	100	124	207
Total variable cost	1,424	1,981	2,389	3,137	3,904	6,495
Total cost	4,326	6,341	7,859	10,732	13,811	23,818

*See footnotes to Table 2 (text).

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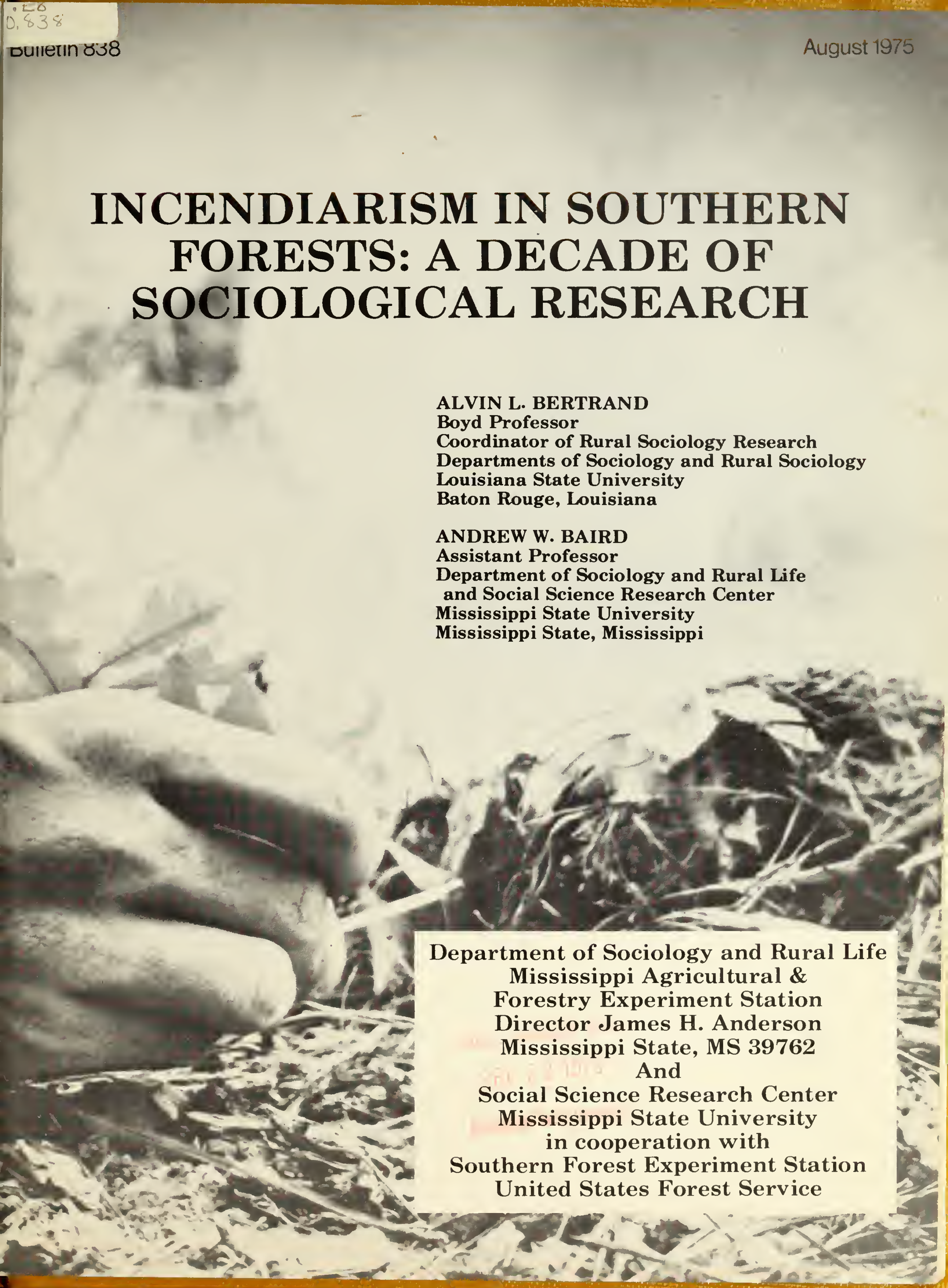

Bulletin 838

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INCENDIARISM IN SOUTHERN FORESTS: A DECADE OF SOCIOLOGICAL RESEARCH

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Introduction

Prefatory Statement

This volume, in a general way, is dedicated to conservation---more precisely to the conservation of a particular natural resource, the forests of the nation. It is unique in its approach in that the concern is with the human factor in the destruction of forests through fire in a particular region---the South.[1]

There is nearly total agreement that forest products are not only vital to the maintenance of our present "quality of life" but are growing ever shorter in supply. Nevertheless, there are those who engage in practices that greatly diminish the available and potential supply of marketable trees.

The focus of attention in the discussions that make up this rather detailed document is one of these practices---incendiarism or deliberately set forest fires. In essence this volume is a report on the sociological research that has been publicly supported and conducted with the objective of learning more about how to conserve our national forest resources.[2]

The reader of this volume must proceed from a certain perspective if he is to make the most enlightened interpretations of the methods and findings presented. This perspective includes a knowledge of the following situational factors that set the parameters for the studies made:

First, it must be understood that the research reported on was accomplished almost exclusively in Louisiana and Mississippi. These states were selected for the work for several reasons---the fact that incendiarism is a serious problem in both states; the fact that the areas of incendiarism in these states were considered somewhat typical of such areas in the rest of the Southern region; the fact that there were professionals available and interested in studies of fire in the two states; and the fact that close cooperation existed between the USDA Forest Service and the State Forestry Commissions of the two states.

Second, a clear distinction must be made between accidentally set and deliberately set fires. Accidentally set fires such as those resulting from burning debris or campfires are not the concern of this report. The concern is specifically with fires deliberately set on land owned or controlled by others.[3]

Third, some communities have a history of fire, while other communities in the same general locality do not. In a way this is a strange paradox, but it is explainable in terms of both historical and sociological factors. In some places there never was an open range tradition, for example, and programs of fire prevention seem to have been more effective in these areas than in others. All in all, it appears that fire-setting is more a matter of culture than of sociodemographic characteristics. One therefore has to be careful not to assume that communities in a general geographic location will all follow one pattern related to fire-setting.

Fourth, much of the research summarized was conducted at Louisiana State University and Mississippi State University through cooperative projects with the USDA Forest Service. In this way it was possible to provide research assistantships for a considerable number of graduate students. Each of these students produced a thesis or dissertation on work he did on projects designed to learn more about fire-setting practices in Louisiana and Mississippi. These theses and dissertations provided a substantial source of information for this volume.

[1] *The South as defined here includes: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.*

[2] *Important sociological research has been conducted in other parts of the nation besides the South, particularly in the West by the Pacific Southwest Forest and Range Experiment Station.*

[3] *An incendiary fire, as defined by the U. S. Forest Service, is a fire willfully set by anyone to burn vegetation or property not owned or controlled by him and without consent of the owner or his agent. See* **Glossary of Terms Used in Forest Fire Control,** *United States Department of Agriculture, Forest Service, Agriculture Handbook No. 104, Washington, D. C., August 1956.*

Why Sociological Studies?

It is not unfair nor out of order to pose the question, "why should the Forest Service solicit and support sociological research?" The answer to this question provides a fitting introduction to the discussion that follows. It also provides an opportunity to present and define sociological concepts that have relevance to what might be termed a "people problem."

No longer than 12 to 15 years ago, most of the forest fire research in the United States was directed toward the technical aspects of actively controlling fire, primarily suppression and control. Long before this time it had been determined that the great majority of the forest fires were man-caused and a large percentage of these fires were deliberately set. Said another way, each year many millions of dollars worth of forest raw materials were being destroyed by fires, the origins of which were traceable to man's activity and not natural factors.

Faced with this fact, it was logical, if not traditional, for the administrators of the fire prevention program in the Forest Service to turn to social scientists for help. In the Southern region, the first move along this line occurred in the mid 1930's. However, this effort was short-lived and was phased out in the early 1940's. A second, more extensive and intensive effort was initiated with the establishment in 1962 of a cooperative research agreement between the Southern Forest Experiment Station and the Social Science Research Center at Mississippi State University. The details of this work form the substance of the various discussions that follow.

This volume is designed to serve two specific purposes. The first---and perhaps most important---purpose is to remind us all that forests and woodlands represent a major natural resource and that there is a public charge to preserve and utilize this resource as wisely as possible. This charge becomes imperative in the face of a growing population which places relentless pressure on a limited supply of forest lands.

The second specific purpose of this report is to inform. It stems from the fact that very little is known about the sociological research that has been done in the interest of preventing or minimizing uncontrolled and destructive man-caused forest fires in the Southern region. The challenge that we accepted was not only to present the findings of these studies, but also to explain their rationale and the conceptual framework and methods employed in their implementation. One message in this report is unmistakable and clear---the USDA Forest Service, and more specifically the Southern Forest Experiment Station, has been innovative in using sociologists to fulfill that part of its mission related to providing the nation a continuous supply of timber.

The Dimension of the Wildfire Problem

Man-caused wildfire has always been a serious problem in the United States. Evidence of this fact can be obtained from fire-occurrence statistics, (Table 1.). From 1962 to 1972, an average of 110,879 fires occurred each year on land protected by forestry agencies---ranging from a high of 145,920 fires and 3,317,188 protected acres burned in 1963 to a low of 98,947 fires and 2,282,481 protected acres burned in 1972. Man-caused fires ranged from a high of 92 percent of the total in 1969 to a low of 85 percent in 1972. What is even more appalling is the fact that, nationwide, more than one-fourth of the fires were classified as incendiary.

Wildfire statistics for the South are even more alarming in that this region has more fires and a larger percentage of man-caused fires than does any other region of the country. For the 1962-1972 period the Southern region had an annual average of 57 percent of the nation's fires. Only once in the eleven-year period did the region have less than 50 percent of all fires occurring in the nation. An average of 98 percent of all fires occurring in the South during the eleven-year period were man-caused and 39 percent of these were incendiary.

Statistics clearly show that incendiarism historically has been and continues to be the primary wildfire problem in the South. For the 1968-1972 period, the two leading fire causes in the region were incendiarism and debris burning, accounting for 38 percent and 28 percent respectively of all fires. These two causes accounted for 74 percent of the total protected acres burned, incendiarism 52 percent and debris burning 22 percent. The evidence leads to the unmistakable conclusion that the fire problem in the South is distinctly different from that of other regions of the country. In short, the South has the most extreme manifestations of the incendiary wildfire problem in the United States.

Table 1. Number of Forest Fires on Protected Acres in the United States and the Southern Region, by Cause, by Year, 1962-1972.

	Number of Fires by Causes													
	Lightning	Comp fires	Smoking	Debris burning	Incen-diary	Equip-ment	Rail-road	Chil-dren	Misc.	Total	% So. Region of total	Mon-caused	% Man-caused	% Incen-diary
1962														
U. S.	10,596	3,304	17,766	26,378	29,180	6,237	ND	ND	11,447	104,908		94,312	90.0	27.8
So. Region	2,463	1,647	10,996	15,654	24,299	2,809	ND	ND	3,530	61,398	58.5	58,935	96.0	39.6
1963														
U. S.	11,565	4,218	24,521	38,756	41,429	8,208	ND	ND	17,223	145,920		134,355	92.1	28.4
So. Region	2,062	2,073	15,297	22,608	33,332	3,846	ND	ND	5,180	84,398	57.8	82,336	97.6	39.5
1964														
U. S.	7,887	3,954	15,455	26,252	25,431	8,353	ND	ND	12,025	99,357		91,470	92.1	25.6
So. Region	1,338	1,639	7,212	13,000	18,917	2,902	ND	ND	2,929	47,937	48.2	46,599	97.2	39.5
1965^2														
U. S.	8,730	3,404	16,517	22,882	26,860	6,734	ND	ND	15,441	100,568		91,838	91.3	28.7
So. Region	1,128	1,468	10,667	14,834	21,275	2,775	ND	ND	4,608	56,755	56.4	55,627	98.0	37.5
1966														
U. S.	10,232	3,666	16,807	26,726	28,388	8,509	ND	ND	15,400	109,728		99,496	90.7	25.9
So. Region	774	1,377	10,353	17,659	23,170	3,186	ND	ND	4,412	60,931	55.5	60,157	98.7	38.0
1967														
U. S.	10,335	3,405	16,844	28,253	33,116	8,763	ND	ND	13,046	113,762		103,427	91.0	29.1
So. Region	1,057	1,700	12,168	18,847	28,943	3,748	ND	ND	5,573	72,036	63.3	70,979	98.5	40.2
1968														
U. S.	9,066	2,986	17,162	31,192	32,417	8,382	ND	ND	16,511	117,716		108,650	92.3	27.5
So. Region	1,469	1,247	11,690	19,677	26,873	3,800	ND	ND	5,254	70,010	59.5	68,541	98.0	38.4
1969														
U. S.	8,233	3,489	14,753	27,652	31,383	8,437	ND	ND	13,558	107,505		99,272	92.3	29.2
So. Region	885	1,590	10,128	18,128	26,077	3,455	ND	ND	5,169	65,432	60.9	64,547	98.6	39.9
1970														
U. S.	12,804	3,822	14,500	28,337	30,925	3,406	6,824	7,652	8,153	116,423		103,619	89.0	26.6
So. Region	1,293	1,146	9,565	19,348	25,218	1,722	2,703	2,626	4,077	67,698	58.1	66,405	98.1	37.3
1971														
U. S.	10,475	3,600	12,367	24,969	27,593	3,465	7,135	7,114	8,122	104,840		94,365	90.0	26.3
So. Region	1,364	987	8,039	16,659	21,097	1,496	3,060	2,737	3,375	58,814	56.1	57,450	97.7	35.9
1972														
U. S.	14,431	3,518	10,005	21,046	24,682	3,589	6,520	7,137	8,019	98,947		84,516	85.4	24.9
So. Region	1,791	609	6,255	13,823	19,702	1,242	2,665	2,642	2,506	51,235	51.8	49,444	96.5	38.5
Average 1962-1972														
U. S.	10,396	3,579	16,063	27,495	30,128	6,735	6,826	7,301	12,631	110,879		100,484	90.6	27.3
Sa. Region	1,418	1,408	10,215	17,294	24,446	2,816	2,809	2,668	4,238	63,331	57.1	61,911	97.8	38.6

Source: Wildfire Statistics, Division of Cooperative Forest Fire Control, Forest Service, U. S. Department of Agriculture.

The Overall Research Plan and Strategy

When funds were first made available for sociological research into the problem of man-caused wildfires, a preliminary investigation was conducted in Mississippi and Louisiana to determine the dimensions of the problem at hand. This reconnaissance made it clear that a major step-by-step effort would be required to obtain the answers sought. Moreover, it was obvious that the problem was of such a nature as to require considerable time to fully investigate. The research program was planned (in a rather informal way) in light of these considerations. The strategy devised and implemented may be described as follows:

The first research phase was an obvious one---a determination of the areas in Louisiana and Mississippi where fire setting was considered to be a serious problem.

Available systematic records made possible the tabulation of fire occurrence by locality (parish or county) and time of year. Attempts were made to locate the areas where incendiarism accounted for a large percentage of total fire occurrences. Information on the number and distribution of incendiary fires removed the element of speculation as to the locations of the major fire problems.

The next logical research question was, "who set the fires and why?" The answers to this question could not be obtained from data already available. A field survey was called for, and was planned, as a second major step in the overall research effort. In planning the approach, we developed questionnaires for use in interviewing a sample of persons living in areas where fires were common. The interview questions were structured to a large extent, but still allowed for probe techniques.

Once it was known where fires occurred, who was likely to set them and the reasons for fire setting, we initiated an investigation designed to determine why previous programs and efforts to encourage fire prevention had not been more effective. The first step was to determine the access that persons living in areas of high fire occurrence had to mass media types of communication. Next, an attempt was made to determine the frequency and type of fire prevention messages sent via mass media.

One of the procedures for this part of the study was in the nature of an experimental design. The purpose of this design was to determine how persons living in areas of high fire occurrence and in areas of low fire occurrence reacted to messages via the mass media, to symbols such as Smokey the Bear and to miscellaneous other fire prevention messages such as those delivered by road signs.

The next step in the research process was designed to determine what strategies might be used to more effectively convey the fire prevention message. This study phase had two aims---the first was to identify the so-called influentials in communities of high fire occurrence. The logic of this was that a fire prevention message delivered by a respected friend or neighbor would more likely be heeded than one heard over the radio or read in a newspaper. The second aim of this phase was to determine how ideas and attitudes relative to fire setting were transmitted from one person to the next and what accounted for the differences observed in families and communities. This included interviews with youth to determine what beliefs they had relative to fire setting and from whom they had obtained their beliefs.

The follow-up to the research accomplished to this point was planning and implementing a program of fire prevention in selected communities where fires were frequent. After this program had been in existence for some time, its effectiveness was evaluated.

Other research was planned and carried on concomitantly with the studies just described. Primarily, these related studies had two purposes---the first was to determine the number and nature of organizations with forest-fire-prevention objectives in the study areas. We wanted to generate information that would lead to concerted and integrated action on the part of all groups interested in reducing wildfire occurrences. The second purpose was to determine how laws and regulations relating to forest incendiarism are enforced. These investigations were inspired by the apparent infrequency of arrests and convictions in connection with what some have called "woods arson."[4]

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[4] *The sociological research sponsored by the Southern Forest Experiment Station is still in process. The last study completed before this volume was written dealt with methods for assessing forest fire risks in given areas. The research currently being planned follows in logical sequence the work already accomplished. The general approach is an intensive participant observation study in areas where problems continue.*

The Socio-Cultural Setting of Incendiarism: The Conceptual Framework

The Theoretical Perspective

It may appear to the uninitiated observer that social scientists go about their work without an overall conceptual framework in mind. This is not---or should not be---the case. For the fire prevention studies described here, the overall conceptual picture was perceived as follows:

A basic sociological principle is that man must organize; that is, he must learn to work in concert with his fellow men if he is to survive. In accordance with this principle, people everywhere live, work and play primarily as members of groups. They remain group members in good standing so long as they practice behavior acceptable to those with whom they associate. Thus, behavior ("acts") becomes the analytical focus of the sociologist. Problems become manifest when the behavior of an individual is contrary to that which the members of his group have come to expect. By the same token the behavior of a group may deviate from the expectation of members of a larger social entity such as a community, region or society. For example, the members of a local community or group within the community may practice fire setting behavior, which is considered wrong by the Forest Service, representing the larger national society.

The sociological aspects of forest fire prevention can be compared to other aspects of forest pathology through the use of a simple model (Folkman, 1967, p. 11). This model has three parts, the first of which conceives of an insect, a virus, a human, etc., as the agent (here, the fire agent) of pathology that is the source of the problem. The second is the host, the tree (or forests) to which the agent is attracted and upon which it produces harm. The last concept in the model is that of the environment within which the host exists, and includes characteristics of the physical setting and the social climate which encourage or allow the agent of pathology to exist.

The above model can be used to conceptualize fire prevention research. The persons setting fires are obviously the agents of harm, which must be understood and controlled. Understanding this "agent" requires development of intimate knowledge of the environment, in this instance the social environment, which provides a favorable setting for fire. The research problem falls into focus at this point, in that it becomes clear that the beliefs and attitudes that support or condone fire setting must be determined. This is no more and no less a research problem than attempting to learn the life patterns of a harmful insect or the characteristics of a harmful disease organism.

This brief account leads us to a consideration of the history of the use of fire in the Southern region and to the specific concepts and terms---the analytical units---that the sociologist uses in his studies.

The Cultural Perspective

There is no way to understand the incendiary problem in the Southern region without a knowledge of the cutural history of this part of the nation. In its broadest sense, culture refers to the behavior patterns, attitudes, values, and material objects that men employ to cope with their environment. Said another way, culture is the embodiment of ways of thinking, feeling and acting---ways that have been historically derived and that make it possible to predict human behavior.

Long before the advent of the white man in this country, Indians used wild fires to maintain a balance in the forest favorable to their subsistence. Hansbrough (1963) has called the deliberate burning done by Indians the primitive management of a food resource. He elaborates by noting that the Indians used fire as a hunting aid, to clear the underbrush to facilitate visibility and travel, to increase the growth of plants, and to prepare seed beds. Ecologists and foresters, it is noted by

Hansbrough, agree that Indian fires modified the species composition of southern coastal plains forests, and created extensive, open, park-like woods free of undergrowth.[5]

Various practices the Indians employed in the preparation of land, the tillage of crops and the rotation of fields were adopted by the early settlers in the Southern region. As time passed, additional benefits were derived. Hansbrough identified the major economic uses of fire as the region developed (1961, pp. 40-55) and clearly identified the significance of this heritage (1963, pp. 23-24):

> *The use of fire in the economic pursuits of the people as a primary laborsaving device for clearing the forest and disposal of brush and litter to encourage grass to grow for cattle pasturage are customs which are an integral part of the economic history of the South.*
>
> *Fire-setting is a custom that has been predicated largely upon the assumption that timber is either an undesirable barrier to land use or, at best, an expendable commodity secondary in importance to other land uses. In the course of time, aggravated by the practices of a migratory lumber industry, it has become accepted as normal behavior by many people of the South. It has been only within recent times that woods-burning has come to be defined by some people as deviant behavior.*
>
> *Therefore, we find in the South forest agrarian groups whose culture pattern favors woods-burning because of long-standing customs arising out of the social and economic needs of the people. In a sense, these people have not yet learned to* **dislike** *fire. It is because of this that man-caused forest fires are still a constant threat to forestry in the South. In fact, the persistence and/or threat of wildfire, arising out of a frontier or pseudofrontier way of life, remains the outstanding obstacle to timber growing in many areas of the South.*

Many foresters (and others) are inclined to underestimate the present-day importance of the history of fire in the Southern region. However, the incendiary problem cannot be explained meaningfully otherwise nor can the dimension of the problem of the future be fully understood outside of this perspective.

Wildfire Acculturation as a Continuing Process

In sociological parlance, socialization is a term that refers to the process through which the individual obtains a knowledge of the ways and things which are approved in his society---that is, his cultural heritage. One's language, dress, modes of addressing others, views toward religion, and manner of contemplating woods-burning are all acquired as part of socialization. Socialization, as a rule, takes place primarily in the home. However, every group within which the individual participates and literally everyone with whom he comes into contact contributes something to his behavior pattern. The fire prevention research planned, accomplished, and reported here was based on the assumption that the socialization process accounts for and perpetuates the wildfire culture. The following two studies were made to test this assumption:

Older Youth and Their Parents Hold Similar Views on Local Issues---In the first study designed to test the effectiveness of the socialization process, older youth (of high school age) and their parents in a high fire occurrence area were asked their feelings about fire-related issues (Welch, 1970). After careful questioning of the older youth it was concluded that parent-child attitudes were basically the same on four important issues. These issues were: attitudes toward burning the woods, beliefs about why the woods should be burned, attitudes toward land ownership, and attitudes toward paper companies. In each of the above instances the responses tended to support a "burning" culture. The youngsters were even more negative in their feelings than their fathers on a fifth issue--their attitudes toward governmen agency representatives. Apparently government employees represented direct control to th youngsters and their reactions were stronger than those of thei elders.

Pre-Teen Students Reflect th Behavior of Their Parents---The se cond study conducted to test th socialization process was planne to determine how well younge children had been socialized to a appreciation of fire prevention This study involved fifth-grad students in a school located jus across the Louisiana state line i Texas. The students were from tw areas, one a high fire occurrenc community and the other a low fir occurrence community (Dickerso and Klein, 1971).

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[5] *For a detailed account of Indian use of fire, see Hansbrough, 1961, pp. 29-40.*

The interesting discovery from the above study was that socialization does register at an early age. The students from the low fire occurrence community were more active in the woods and in hunting and were much more fire-prevention minded. They had more knowledge of correct hunting and camping techniques and were more knowledgeable about fire rules than were students from the high fire occurrence community. It is significant that the schools in the low fire occurrence community included more fire prevention instruction and textual material. These findings emphasize that programs aimed at younger children are worth considering in planning future strategies to reduce forest incendiarism.

The findings of the above studies have important implications. The first is that the fire problem is not likely to die of its own accord, as some have wished. In fact, certain of the feelings expressed by youth may well indicate that they are even more negative in their fire prevention views than their elders. Their more negative attitudes toward government agencies imply that the programs of these agencies have not been successful in gaining the support of local youth. With this fact in mind, it can be predicted that the fire problem will continue unless the attitudes of local people are somehow changed. Once adults change they can be expected to change their children. Of course, change in children can also be brought about through education programs outside the home. In this regard, the actors in such social systems as family groups, neighbor groups, and school groups are the agents of socialization for each new member added to the group. These new members, be they children or adults, must subscribe to the beliefs and sentiments held by their fellow community members in order to remain in good standing with them.

Characteristics of Residents of High Fire Occurrence Areas

'Hotspot' Areas in Louisiana and Mississippi

Woods fires do not occur randomly in Louisiana and Mississippi, or, for that matter, anywhere in the Southern region. There are definite "hotspots" that consistently show up in fire statistics year after year.

Of the 79 protected counties in Mississippi, 23 had fire occurrence rates (number of fires per one-million acres protected) classified as "very high", an average occurrence rate of 408 or more fires per year for the eight-year period (Figure 1.) Fourteen other counties had rates classified as "high", an average annual occurrence rate ranging from 283 to 407 fires. Thus, a total of 37 counties in the state were classified as having "high" or "very high" fire occurrence rates, an average of 283 or more fires per year for the eight-year period.

The major fire problem in Mississippi was concentrated in the southern third of the state, with the Delta or hardwood area having the lowest rates. The largest concentration of "very high" rates consisted of a block of 18 of the southern-most counties. A second "very high" concentration consisted of three counties in the extreme northeastern corner of the state. Over one-half, or 46 of the 79 protected counties in Mississippi had average fire occurrence rates classified as moderate or higher---207 or more fires per year.

The fire concentration pattern in Louisiana was generally the same as that in Mississippi, only perhaps more severe (Figure 2.) Of 41 parishes (counties) under protection, 14 had "very high" fire occurrence rates. However, there were two outstanding areas of concentration. One consisted of a block of eight parishes in the central part of the state. The other consisted of a block of five parishes that border southern Mississippi. This block is adjacent to the block of 18 Mississippi counties that had "very high" fire occurrence rates, thereby making the concentration area very large indeed. State lines are only an arbitrary bisection of an area of "very high" fire rate concentration.

Knowledge of areas of high fire occurrence made it possible to plan the studies described in this report. The research had three major specific aims in addition to the general objectives given in The Introduction: to determine if persons in high incendiary areas exhibited a particular set of socio-demographic or socio-economic characteristics; to determine if persons in these areas held values and attitudes that are readily associated with fires; and, to provide information on the patterns of communication and social control that characterize these communities.

The Socio-Personal (Demographic) Characteristics of Residents of High Fire Occurrence Communities

A standard practice in sociological studies is to determine what might be termed the socio-personal characteristics of populations under study. This is done because the personal traits of individuals such as their age, sex, education, income, and race, are important independent variables that account for or explain certain patterns of behavior. It is simply a matter of knowing that younger persons will behave differently from older persons, as a rule, and that persons with lower levels of living and education will behave differently from those with higher levels, and so on.

All of the studies reviewed indicated that a very small percentage of the persons living in a given area are actually involved in incendiarism. There are several reasons why only a few persons set fires: most individuals do not have reasons to set fires; many are genuinely concerned with the destructive potential of fire; and some, no doubt, are responsive to the possible penalties for burning

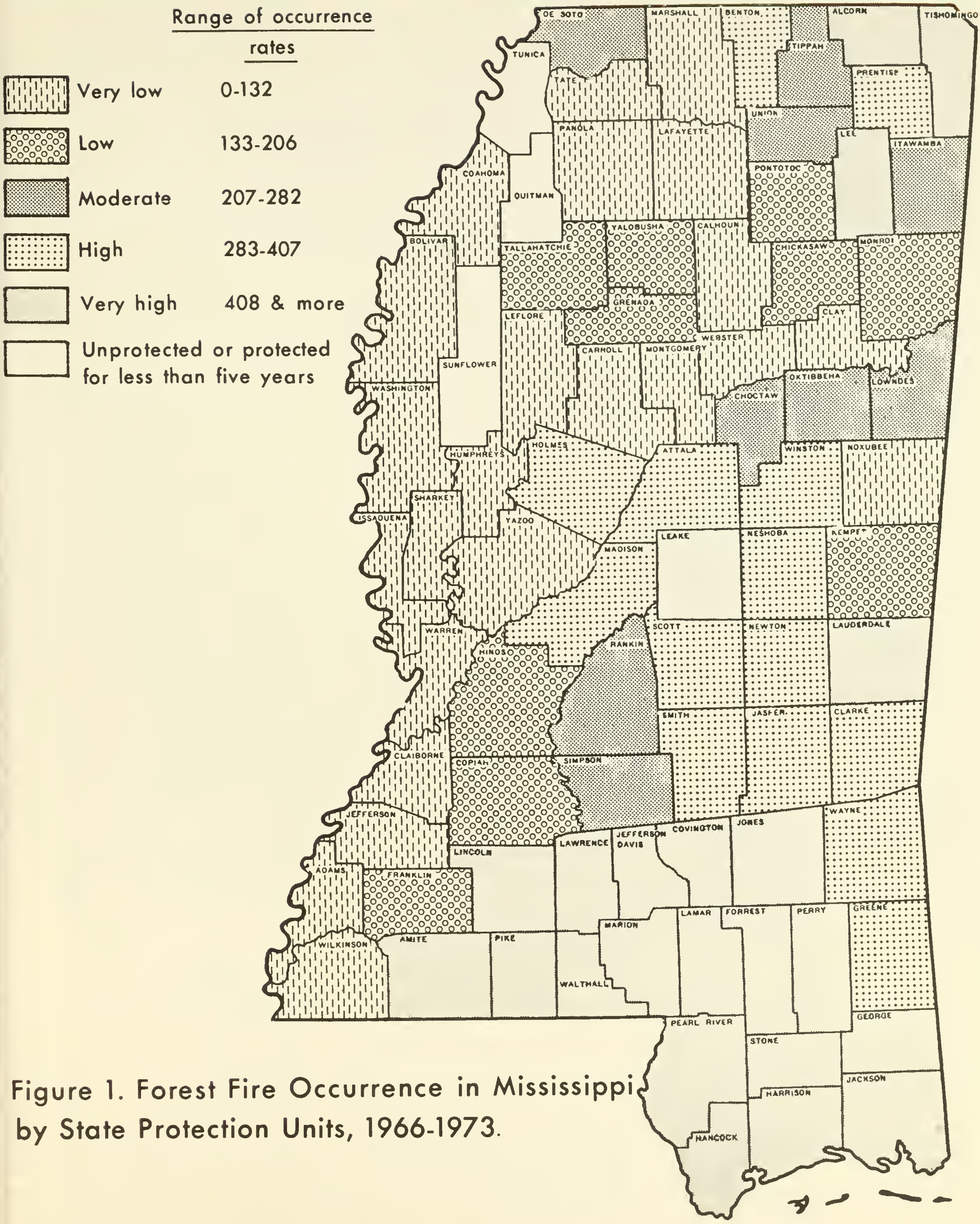
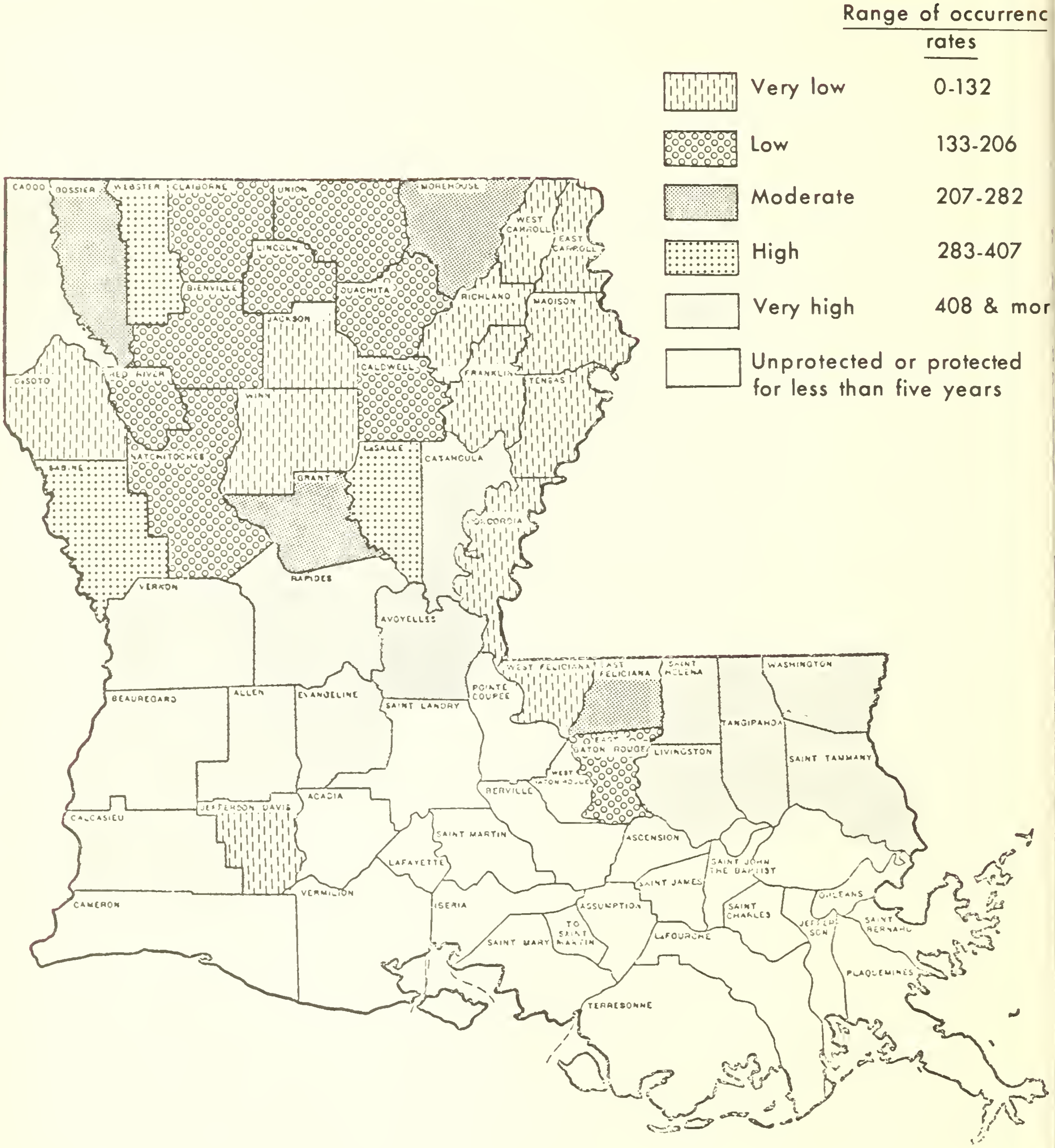

Range of occurrence rates
Very low 0-132
Low 133-206
Moderate 207-282
High 283-407
Very high 408 & more
Unprotected or protected for less than five years
DE SOTO
MARSHALL
BENTON
ALCORN
TISHOMINGO
TUNICA
TIPPAH
TATE
PRENTISS
UNION
PANOLA
LAFAYETTE
LEE
ITAWAMBA
COAHOMA
QUITMAN
PONTOTOC
YALOBUSHA
CALHOUN
BOLIVAR
TALLAHATCHIE
CHICKASAW
MONROE
GRENADA
CLAY
LEFLORE
CARROLL
MONTGOMERY
WEBSTER
SUNFLOWER
OKTIBBEHA
LOWNDES
WASHINGTON
CHOCTAW
HUMPHREYS
HOLMES
ATTALA
WINSTON
NOXUBEE
SHARKEY
ISSAQUENA
YAZOO
LEAKE
NESHOBA
KEMPER
MADISON
SCOTT
NEWTON
LAUDERDALE
WARREN
RANKIN
HINDS
SMITH
JASPER
CLARKE
CLAIBORNE
COPIAH
SIMPSON
JEFFERSON
WAYNE
LINCOLN
LAWRENCE
JEFFERSON DAVIS
COVINGTON
JONES
ADAMS
FRANKLIN
MARION
LAMAR
FORREST
PERRY
GREENE
WILKINSON
AMITE
PIKE
WALTHALL
PEARL RIVER
STONE
GEORGE
HARRISON
JACKSON
HANCOCK

Figure 1. Forest Fire Occurrence in Mississippi by State Protection Units, 1966-1973.


Range of occurrenc
rates
Very low 0-132
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Unprotected or protected for less than five years
CADDO
BOSSIER
WEBSTER
CLAIBORNE
UNION
MOREHOUSE
WEST CARROLL
EAST CARROLL
LINCOLN
BIENVILLE
OUACHITA
RICHLAND
MADISON
JACKSON
DESOTO
RED RIVER
CALDWELL
FRANKLIN
TENSAS
WINN
NATCHITOCHES
LASALLE
CATAHOULA
SABINE
GRANT
CONCORDIA
RAPIDES
VERNON
AVOYELLES
WEST FELICIANA
EAST FELICIANA
SAINT HELENA
WASHINGTON
POINTE COUPEE
BEAUREGARD
ALLEN
EVANGELINE
SAINT LANDRY
TANGIPAHOA
EAST BATON ROUGE
LIVINGSTON
SAINT TAMMANY
WEST BATON ROUGE
IBERVILLE
ACADIA
CALCASIEU
JEFFERSON DAVIS
SAINT MARTIN
ASCENSION
LAFAYETTE
SAINT JOHN THE BAPTIST
SAINT JAMES
VERMILION
CAMERON
IBERIA
ASSUMPTION
ORLEANS
SAINT CHARLES
JEFFERSON
SAINT BERNARD
SAINT MARY
TO SAINT MARTIN
LAFOURCHE
PLAQUEMINES
TERREBONNE

Figure 2. Forest Fire Occurrence in Louisiana by State Protection Units 1966-1973.

the land of others. Nevertheless, it is clear that the residents of high fire occurrence areas must be culturally attuned to fire setting as an acceptable practice, or this practice would not occur to the extent it does. Said another way, the studies show that inhabitants who do not follow recommended forestry practices related to burning have certain negative attitudes toward fire prevention and/or controlled burning (Baird, 1965, pp. 13-14). By this token, although fire setters may be few in number in high incidence communities, they can practice fire setting with the assurance of at least the toleration of their activity because community members subscribe in some degree to the beliefs and/or attitudes that motivate the fire setter.

Heads of Households[6] *Tend to be Older in Incendiary Areas*---Jones *et al.* reported that one of every three males was over 60 years old in a high fire occurrence community in Louisiana, whereas only one of every five males in Louisiana was that old (Jones, Taylor, Bertrand, 1965). The median age for heads of households in incendiary areas appears, on the basis of the investigations completed, to be around 63 years (Bertrand, Heffernan, Welch and O'Carroll, 1970; Jones, Taylor, Bertrand, 1965; Hansbrough, 1961; Baird, 1965). This is approximately eight years more than the average age of farm operators in Louisiana and Mississippi.

The fact that people tend to be older in areas of high fire occurrence suggests that programs of fire prevention and conservation must be designed to reach a mature audience. Such an audience is likely to hold basic attitudes and values that were formed at an earlier age and thus may be opposed to forest conservation practices that have evolved in recent years.

Heads of Households Tend to Have Less Than a High School Education---In the communities studied, it was unusual to find a household head who had an advanced level of education. In fact, seldom were more than ten percent of the adult respondents high school graduates (Jones, *et al.*, 1965, p. 13). This finding has significance for the dissemination of fire prevention messages and for public relations programs. Such communications, obviously, must be in language that is understandable to an unsophisticated audience.

Heads of Households Tend to be Highly Localite in Their Orientation---Residential mobility tends to broaden one's experience and is likely to acquaint one with new and different ideas about things and places. In this light, it is logical to assume that those persons who had a so-called cosmopolite experience would have more appreciation for forest conservation. It is thus significant to learn that heads of households living in high incendiary areas tend to be life-long residents of these areas. In one study (Jones, *et al.*, 1965, p. 14), eight of every ten household heads interviewed were lifelong residents of the study area. In a second study (Hansbrough, 1961, p. 174), not only were the majority of interviewees lifelong residents of their communities but the majority of their parents were as well. It is easy to comprehend why traditions persist when there is little opportunity for interaction with persons having different orientations.

Heads of Households Tend to be Unemployed or Underemployed, Retired, or in Unskilled Occupations---In each of the study areas a large number of household heads were not working away from their homes. In one study (Jones, *et al.*, 1965, p. 15), two-fifths of the men interviewed were unemployed or retired. In another (Hansbrough, 1961, pp. 173-174), 30 percent of the persons interviewed were retired and/or on welfare. Judging from the findings of the studies in areas with high fire rates, about three out of every ten adult males were employed in unskilled jobs; only one out of ten was in a white collar position. Farmers, in a census definition sense, made up from one-tenth to one-third of the population of these areas. Again, the above findings indicate a low level of sophistication.

The Use of Census Data in Identifying High Fire Occurrence Areas

The apparent importance of demographic and socio-economic variables in characterizing high fire risk has led researchers to attempt to devise ways of identifying high fire occurrence areas from a simple scrutiny of census data. In one study, a researcher analyzed data for 30 pairs of contiguous counties in states in the Southern region. In each pair of counties selected, one had a high fire occurrence rate and the other had a low fire occurrence rate, according to an arbitrarily determined ranking (Johnson, 1968). Demographic and socio-economic data were collected for the 60 counties and classified to permit comparisons.

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[6] *The head of a household is typically also the head of a family, but he may be a single person living alone or with no other relatives. Bureau of the Budget,* **Household Survey Manual** *(Washington, D. C.: U. S. Government Printing Office, 1969, p. 6).*

The first finding of the above study was that forest fire occurrence rates increased as population density increased. This finding corroborated two other investigations (Cole and Kaufman, 1966, p. 29; Hansbrough, 1963, p. 26) that found forest fire occurrence to be directly correlated with the increased pressure that a higher density of population places on land and other natural resources. A second finding of the Johnson study was that forest fire occurrence rates increased as the proportion of white rural non-farmers in the population increased. This too was a corroboration of previous research findings of Cole and Kaufman (1966) and Hansbrough (1963). The third finding was that areas tend to have higher fire rates where the population is older. This finding is in keeping with the findings of studies done in individual communities. An interesting fourth finding was that forest fire occurrence rates increased as the proportion of the population that was urban increased. The incidence of forest fires seems to be greatest in the growing urban fringe populated primarily by migrants from rural areas. These migrants tend to include individuals who were prone to set fires in their previous locations. However, there are more fires of accidental origin than of deliberate origin in urban fringe areas.

Another finding derived from the study of county data was that farming activity as measured by percentage of labor force engaged in agricultural pursuits, was associated with lower fire rates. By contrast, both income and education tended to be associated with higher fire rates. These findings are in keeping with the discovery that high population density and rural non-farm residence are associated with more fires. Persons living in rural areas but employed in industry or in cities tend to have higher education and higher incomes, but apparently are more prone to be high forest fire risks.

Socio-Cultural or Attitudinal Characteristics of Residents of Areas of High Fire Occurrence

Culture is a concept for understanding meaningful interaction between two or more people. Interaction always takes place within the framework of commonly accepted ways of thinking and acting. It also reflects the knowledge that the individual actors have of the physical (man-made and natural) world about them. Members of sub-cultural groups have peculiar ways of behaving which stem from their beliefs, values, and attitudes that are not shared by the majority of the members of the societies to which they belong.

The questions that we posed to persons in high fire rate communities were designed primarily to probe for attitudes related to forestry practices and views related in a general way to forest fires. The idea was that a person who was concerned with trees would also likely be concerned about the useless destruction of trees. What might be termed a "climate of opinion" was sought about forestry, forest conservation, forestry agencies and woods burning. This climate of opinion is understood as representative of the total populace in high fire areas and not just of persons who set fires. In this regard, an individual may be negative or uninformed on one point, but well informed and positive on another. The important fact is that, when a substantial number of persons express a given view, this view can be considered as embedded strongly in the local culture.

An attitude, as used in this volume, is a "tendency to act" in a particular way. An attitude results from the socialization experiences (and the values derived from these experiences of an individual or group and can be thought of as having three components: cognition, affect, and behavioral intention (Triandis, 1964).

In probing for attitudes, we attempted to determine the level of knowledge of an individual, such as his notions regarding the benefits or harm of fire. This was considered to be the individual's "cognitive map" or his perception of the situation. In the course of questioning, we determined whether there was a feeling (usually emotional to an extent) that fire is good or bad. This was identified as the affective component, or value aspect, of the attitude and provided a clue to behavioral intention; that is, whether or not a fire would be set if and when circumstances offered an opportunity. The same type of questioning determined behavioral tendencies relative to conservation practices or other "positive" aspects of forest management and development.

Sometimes there is a lack of consistency in the components of an attitude held by a person. For example, one may find that Mr. X is fully aware of the value of trees as a natural resource and is actually following certain management and conservation practices. Yet, he may also express views favorable to the uncontrolled burning of woods. Such an obvious contradiction is referred to as "cognitive dissonance," meaning that there is an inconsistency between what one knows and what one is likely to do (Festinger, 1957).

Residents Tend to Believe That Forestry is Worthwhile Economically---Programs designed to show the value of trees as a natural and economic resource and to encourage conservation and management practices have been in existence for a number of years. In fact, it is hard to imagine anyone who has not been exposed to this type of message. It was for this general reason that the directors of several of the sociological studies sought to discover how widely known and accepted the view was that forests were a valuable natural resource and should be conserved and wisely managed.

The conclusion that can be drawn from the above type of investigations is that many persons, even in the areas of highest fire incidence, subscribe to the belief that forestry is economically worthwhile. For example, as many as three-fourths of the heads of households in a Louisiana area of high incendiarism felt that forests were important to the local economy, and almost the same number felt that planting trees was a good investment (Bertrand, Heffernan, Welch and O'Carroll, 1970, pp. 8-9). An even larger percentage of respondents (some 91 percent) in a study done in a Mississippi area of high fire occurrence expressed generally favorable attitudes toward forests and forest conservation (Baird, 1965, p. 8). This same general attitude was recorded in a study done as early as 1960 (Hansbrough, 1961, p. 179).

From the above findings, one wonders why fires are set. The first answer seems to be that what apparently is a growing attitude of appreciation for forests is still not strong enough to counter traditional, deeply internalized beliefs. Also, cognitive dissonance seems to be in evidence. At one and the same time that residents in high fire rate communities perceive the value of trees, they also feel some benefits are derived from burning the woods. These benefits, of course, do coincide in some instances with those recommended by professional foresters.

Residents Tend to Have Ambivalent Views Toward Tree Farming---The assumption that persons who have positive feelings about forestry as a legitimate agricultural endeavor would not condone forest incendiarism prompted probes for attitudes and opinions sympathetic to this view. An interesting discovery was that a majority of the residents of high fire occurrence areas expressed favorable feelings about tree farming. Hansbrough (1961, pp. 179-183) found that three out of four interviewees indicated they were in favor of tree farming. Yet, as Hansbrough intimates, it may be more significant that 25 percent of the persons he interviewed were unfavorably inclined toward the growing of trees. He accented this interpretation by noting that those persons who said they were in favor of growing trees almost always qualified their statements in such a way as to indicate low priority for forests as a crop.

The evident conclusion from the above pattern of responses is that forests are not considered as important as other crops in areas where the woods are burned. In the view of local residents a threat to a man's corn or cotton crop or to his livestock apparently would draw much more concern from his neighbors than a threat to his woods. In this light, it can be concluded that tree farming is approved, but not given a high status. In short, there often is a basic economic conflict between forestry and other types of farming, especially if the farm is small (Baird, *et al.*, 1969, pp. 27-28).

Residents Hold Varying Views Regarding the Desirability of Burning of Woods---A second approach used to determine the climate of opinion relative to forest incendiarism was more direct. It involved asking specific questions about the use and misuse of fire. The results of these investigations again make it clear that there are always shades of opinion and knowledge in fire setting communities.

Two out of five heads of households interviewed still felt the woods should be burned annually (Jones, *et al.*, 1965, pp. 19-20).One of every three heads of households in the same study no longer believed it necessary to burn the woods at all. Seven out of ten of these heads of households expressed the feeling that woods burning should be regulated by law and an even larger number (85 percent) believed that persons who set fires carelessly or deliberately should be held legally responsible. Thus, local residents project the feeling that they are becoming more aware of the importance of forest conservation but are still considerably tradition-bound in their thinking.

Residents Demonstrate an Awareness of the Seriousness of Incendiarism---In keeping with our hypothesis that residents of communities with high fire rates are aware of the serious nature of woods burning is the finding that they are almost unanimous (93 percent) in insisting that fires are set by persons who lack awareness of the dangers of woods burning (Jones, *et al.*, 1965, p. 21). More than four-fifths of those interviewed agreed that a large percentage of wild fires are set through carelessness (Jones, *et al.*, 1965, p. 22). However, there is some doubt that the above expressions reflect true feelings, since as many as 25 percent of the same heads of households believed that most people in their community knew who set fires. In technical jargon, the above findings suggest sociological ambivalence---a phenomenon which is evidenced when actors attempt to relate to two distinct reference groups that have different norms.

The above responses to questions about woods burning clearly indicate that there is a degree of both favorable and unfavorable opinion toward the control of fire in rural communities. On the one hand, it appears that residents in such communities have undergone considerable change in their beliefs within recent years. On the other hand, one cannot be sure how much "lip service" is being given to improved practices for the benefit of interviewers and research teams. There is no doubt that a hard core of community dwellers continue to agree that fire is useful and necessary and that fire setters should not be outlawed.

Ideas and Beliefs About Forestry Agencies and Their Personnel

It is not unusual for a client or "target" group to react in a negative way towards the representatives of control and/or public service agencies. Reports that representatives of forestry agencies, such as the U. S. Forest Service and state forestry commissions, have been received or treated less than cordially are not uncommon. For this reason attempts were made to determine the attitudes of individuals in fire setting areas toward these agencies and their representatives.

Residents Verbalize Favorable or Mildly Critical Opinions of Forestry Agency Personnel---The majority of persons in areas of high fire occurrence verbalized sentiments that are in the main favorable or at least positive toward forestry persons (Jones, *et al.*, 1965, p. 18; Baird, 1965, p. 13). However, while they had nothing in particular against the agencies and their personnel and even praised some of their work, they not infrequently felt that they did not benefit the small farmer or small livestock operator a great deal. There was also a tendency to think that such work represented another class of soft government job (Bertrand, Heffernan, Welch and O'Carroll, 1970, pp. 12-15).

In each instance where questions were asked about forestry agencies and their personnel, a small but hard core of interviewees expressed rather strong negative feelings. Illustrations of unfavorable statements, quoted from a Mississippi study, are (Baird, 1965, pp. 29-30):

> *Their work is the most messed up thing I have ever seen. It is unjust for the farmers. It costs the farmer too much for what he gets out of it. If you want to burn off a patch, it costs to get help. We shouldn't have to pay taxes and then pay to have them come out and help us burn off. If you let fire get away it costs you and if you get help it costs you.*
>
> *I am not stuck on it myself. They interfere with people's business too much. I am uneasy about the whole deal. The loblolly pines they set out are no good for lumber.*

Residents Indicate Little Understanding of the Activity of Forestry Agency Personnel---There are at least three possible ways for residents to get to know about forestry agency representatives and their work. The first is through personal acquaintance with forestry personnel, the second is through official contact with such personnel for one or another reason, and the third is through conversations with neighbors or friends who know about the work of such agencies.

A large majority of residents of high fire occurrence areas are not only aware that representatives of forestry agencies are present in their communities but have had some contact with them. In the study conducted by Jones *et al.* only 15 percent of the respondents said they had never had occasion to know or to speak to a representative of a forestry agency (1965, p 17). However, probing indicated that those who did know agency employees tended to interact with them relatively infrequently. In fact most of the interviewees in the communities studied appeared unable to give correct name and position identifications. This pattern suggests that there is an awareness of the presence of forestry agency personnel but little comprehension of their mission.

We conclude that people living in high fire incidence areas are not especially positive or negative towards forestry agencies. However, they are prone to be ignorant about their work and to classify them as just another type of government bureaucracy which occasionally meddles in their affairs.

Concluding Statement

The findings presented make it clear that demographic variables are useful indicators of forest fire risk. Said another way, in rural areas where residents are older, less educated, have less knowledge of the outside world and participate less in the affairs of their communities, they are likely to be more adherent to a fire culture. Moreover, the beliefs and attitudes of residents in high fire incidence communities and areas make it clear that culture is the overriding factor in explaining incendiary behavior. The fact that there is a considerable sentiment for burning and that employees of forestry agencies and their work are not well known and understood undoubtedly accounts in large part for the continuing high rates of incendiarism.

The Motivation and Identity of the Incendiarist

Some of the cultural patterns that persist in certain areas can be traced to historical times when certain practices had more relevance than at present. In this sense the setting of fires represents something of a cultural lag. Other fire-setting stems from a direct action approach to the handling of grievances, such as the dissatisfactions that arise from practices of government agencies or large private land holders. Whatever their rationale, the reasons for fire-setting make sense to the incendiarist and to others in the areas where they live.

The fact that a behavioral pattern may have outlived its usefulness for a majority of the population does not completely obliterate the once prevalent feeling that it is acceptable and right. This feeling can and does persist in given individuals, especially older persons. For example, Hansbrough notes that 62 percent of the interviewees in a study he conducted in a high incendiary parish (county) readily admitted that the fires in their parish were set on purpose (1961, p. 180).

Reasons for Setting Fires

Altogether, four major reasons or motivations for deliberately setting fires on the land of others emerged. Each of these reasons can be traced to folklore or behavior which has traditionally been approved. Said another way, a reason for setting fire is a manifestation of a culture trait or pattern which has been handed down from one generation to the next and which provides ample justification for incendiarism to the person who has internalized the trait.

The Open Range Tradition---Several studies showed that livestock owners, significantly more often than non-owners, felt that burning should not be regulated in their communities. This feeling is readily associated with what is known as the open range tradition and the traditional use of fire for preparing range for grazing. This tradition is of sufficient impact to be termed a cultural heritage and may be explained historically as follows.

In most incendiary areas in Louisiana and Mississippi, the timber industry was the predominant activity when the lands were first opened to use and exploitation. The income of people during these times was primarily from forest-related work. However, as the forests were cut out, local residents had to look for other sources of income. Some of them purchased plots of cutover land for their homes and to graze livestock. They frequently found their usually small holdings insufficient for the needs of their cattle, sheep and hogs. It was a natural development for them to allow their animals to range on the large blocks of land held for speculation by absentee owners and corporations. As time passed the cultural pattern now referred to as the "open range" came into existence. This pattern was characterized by the belief that anyone had customary "rights" to range or graze livestock and to use the land for hunting, cutting firewood, etc. if it was not fenced, even though it was owned by someone else.

The notion of open range was easy to maintain more or less as an inalienable right so long as the owners of the range did nothing to prevent use of their land. In fact, the first 30 or 40 years after the turn of the century were characterized by such an open range orientation, which included the practice of using fire in practically all of the areas in Louisiana and Mississippi where fire is a problem today (Altobellis, undated). Fires were set in late winter or early spring to make the range produce "good" grass.

It may be noted that a social problem does not exist until a condition is so defined by a substantial number of people. This is clearly exemplified by what happened in open range areas around 1940. At this time, original stands of timber were essentially exhausted and the thoughts of large land holders, i.e. the owners of the so-called range, began to be turned to reforestation. Once trees were planted, they had to be protected---especially from fire. It was at this time that uncontrolled burning assumed the nature of a social problem. It was a practice which could not be readily stopped because of having so long been a part of approved and accepted behavior (Hansbrough, 1961, pp. 240-241).

Our point here is that the tradition of burning other people's land was established and justified on the basis of the land being open or free range. This practice, in a manner of speaking, became part of the folkways---the **right way to behave.** This explains the rationale of the "latent" incendiarist, who expresses himself in such terms as, "This land don't belong to nobody," or "This land ain't being used anyway." Such feelings are intensified when the open range has existed through the lifetime of one or more generation of the incendiarist's family. They explain, at least in part, the subculture of fire.

Aesthetics---Incendiarists are motivated by aesthetics (Hansbrough, 1961, p. 241). One learns his or her sense of appreciation for things or experiences through the socialization process. What is considered desirable, beautiful or good is thus closely related to what one has been taught as desirable, beautiful or good (Bertrand, Heffernan, Welch and O'Carroll, 1970, p. 10). This applies to the setting of forest fires and some of the motives of the incendiarist are found in the reasons of aesthetics (Hansbrough, 1961, p. 241).

The first aesthetic reason for setting fires is the notion that the land has to be kept "clean" to make the area "look good." Hansbrough suggests that this orientation is associated with "clean-field" farming and thus represents a culturally related trait. He notes, "The 'pine-bush' to the rural resident represents a sign of poverty and depression" (1961, p. 214). He makes this association, apparently, because of the overgrown conditions he sees on abandoned or rundown places. One can see how a strong sense of tidiness, or of what appears desirable in the way of beauty, might prompt the setting of a fire on someone else's land.

A second, perhaps less readily admitted, aesthetic motivation appears to be the pleasing smell of smoke. In quite a few instances it was easy for interviewers to detect a clearly nostalgic reference to the "good" smell of smoke when the woods were burning, or to the fact that it didn't seem right not to smell smoke at certain times of the year.

The third reason, which has at least a peripheral connection with aesthetics, is the fascination of certain persons with fire itself. Obviously, this is the motivation of the so-called "arsonist," who sets fires simply for the pleasure he derives from watching the fire and the efforts of fire-fighters. Such a reason is never openly disclosed, but past experience indicates that it has and can account for some fires in forest areas.

Revenge or "Spite"--- Investigations have revealed that some residents in woods burning areas deeply resent encroachments on their traditional way of life (Hansbrough, 1961, p. 243). A deep resentment is felt when formerly free range is fenced, or when rental charges are made for use of public lands, or when owners of land used as free range seek to restrict the usage of their land in order to plant trees. In the local culture of the rural communities studied, one takes direct action against an enemy. Since the enemy in this instance is "faceless" and known only as "the ____________ Lumber Company" or "the ____________ government agency," revenge must be sought through property destruction. The obvious target is the company, agency, or other privately owned land. Fire does the trick. In some reports, such fires are referred to as "spite" or "grudge" fires because of their revenge nature.

Eradication of "Harmful" or "Obnoxious" Insects or "Varmints"---It is a common belief in some areas that fire serves to eradicate such inhabitants of wooded areas as ticks, chiggers and snakes (Bertrand, Heffernan, Welch and O'Carroll, 1970, p. 9). This belief is sufficient cause for some to set fire on their land or land other than their own. Typical comments, which have been heard by foresters for years, include:

> *Fire keeps rattlesnakes out and helps keep the bugs outta my corn, and gets rid of the ticks.*
>
> *Fire gets rid of bugs and snakes and just makes the woods cleaner.*

There appears to be only a short respite from insects, snakes, and small animals from this sort of preventive action. Nevertheless, the eradication idea is deeply enough entrenched to account for a certain number of fires set in some communities.

Other reasons for setting fires are occasionally heard. Some of these relate to making an area more accessible for hunting, while others range from a hope of part-time employment as a fire fighter to the pranks of teenagers. However, none of these behavior patterns appear sufficiently often to justify classification as a major motivation for setting fires.

The Identification of High Fire Risk Individuals and Communities

Culture has no significance for behavior unless there is someone to "bear" it. This is why individuals or groups are termed culture bearers and culture transmitters. In this context, the reasons (or motivations) given for setting fires simply represent detectable aspects of a given person's or group's culture. Put differently, for these cultural components to have more than an academic interest to those involved in fire prevention, they must be determined to be important factors in the behavior of individuals or groups. For illustration, a person may be aware of why fires are set but he does not have this knowledge as a part of his cultural identity unless he encourages, condones or sets fires. It was for this reason that attempts were made to identify the bearers of an incendiarist culture, as particular individuals and as community groups.

The "Profile" of a High Fire Risk Individual---It was not possible for us to determine conclusively whether a given person was an incendiarist, but we could determine who departed from acceptable views regarding burning of woods. We identified these latter individuals as "latent" incendiarists or high fire risks (individuals who supported beliefs related to burning).

The characteristics of "latent incendiarists" were: They consistently held attitudes negative to fire prevention and forest conservation; they did not interact a great deal with persons outside their communities; they were less integrated into their larger communities; they tended to be older and less educated, and most of them were social isolates (that is, they interacted infrequently with others).

After a careful consideration of respondents whom they considered illustrative of individuals who were high fire setting risks, Baird and Doolittle (1969) gave the following case description:

> *The respondent . . . was a 67 year old retired logger. He owned 80 acres of land and leased an additional 80 acres of adjacent land owned by the state. He had lived in the community for 35 years, but his father had homesteaded in the area. The name of this respondent was mentioned . . . by a state employee . . . as "bad" about burning.*
>
> *In addition to being a reputed high fire risk, this individual expressed a sympathetic attitude for woods burners and admitted to having set fire to non-owned woodland himself. His reasons for burning were to make his turkey's nests easier to find, to get rid of ticks and to kill a few rattlesnakes. He was careful to point out, however, that he always tried to burn after a rain so that the "big timber" would not be hurt.*
>
> *In terms of his personal characteristics, this respondent was about average for the community. He had an eighth-grade education, owned 25 acres of woodland, belonged to one organization, and was not mentioned by anyone as a leader.*
>
> *. . . His remarks concerning the activities of the various forestry agencies indicated a lack of knowledge about their responsibilities and operations.*
>
> *This respondent and his wife appeared to be somewhat isolationists in their community relations. They attended church outside the community, and did not name any community residents when asked with whom they visited. The man related two or three instances which might be regarded as "run-ins" with neighbors.*

Once the characteristics of potential incendiarists were determined, it was possible to conclude that this type of deviancy was not unlike other types of law breaking in rural areas, in that the acts were individual rather than the work of organized groups. It was also evident that this individual had derived his ideas about burning through the socialization process; i.e., his parents and others had transmitted to him the ideas which he expressed. These findings, in and of themselves, represented something of a breakthrough in the understanding of forest incendiarism in the areas under study. Such knowledge makes it possible to cast the causes given for burning into a more plausible perspective. It also provides an explanation for the apparent failure of many prevention programs, in that these programs seldom reached latent incendiarists.

The Characteristics of "High Risk" Communities---Even though fires are set by individuals, the rate of fire occurrence varies greatly from one rural community to another in Mississippi, Louisiana, and other areas. Awareness of this fact led those planning sociological studies to seek reasons for such differential areal patterns. The results of the investigations emphasize that the whole problem of forest incendiarism can be placed into the cultural perspective.

In one study, two communities within five miles of one another were selected for comparison because the first had a low fire rate and the second had a high fire rate (Griessman and Bertrand, 1967). These communities included approximately the same number of families, covered about the same land area and both were located in the heart of a vast stretch of pine forest land.

Findings from the study indicated the following important differences: members of the community with a high rate of fire occurrence, as compared with residents of the community with a low rate of fire occurrence, were characterized by lower levels of education, an unfavorable evaluation of activities of foresters, an identification with the lower social classes and greater use of open range for livestock grazing. It was also concluded that the members of the high fire rate community were less nationally and internationally oriented in their reading and experience.

The above findings provide a substantive clue to the characteristics of communities of residence of fire setters. They are obviously more likely to be found in communities where the level of sophistication is relatively low and economic activity is geared to subsistence farming and cattle raising. This conclusion substantiated the findings of an earlier study designed to determine the personal characteristics of so-called "forest-cooperators" (Baird, 1965). A forest-cooperator was designated as an individual farm owner with woodland and who had a Soil Conservation Service farm plan on file in the local office. Such persons were assumed to be for forest conservation and against uncontrolled burning. By comparison to non-cooperators, cooperators were better educated, had more sources of income, had higher levels of living, participated in more formal organizations, and had more contacts with representatives of agricultural agencies.

The Communication and Dissemination of Fire Prevention Messages

It is quite obvious that communication is at the heart of fire prevention. With this thought in mind, sociological research projects were designed and carried out with the objective of obtaining answers to three questions: were people in woods-burning areas receiving the fire prevention messages of the fire control agencies; why were these messages apparently ineffectual in preventing fires; and what was the most effective way of communicating such messages to such a public?

Human communication can be defined as a process by which information is transferred from one individual or group to another. The purposes for communicating are varied but can be combined into two general classes---to inform and to motivate (Kuhn, 1963, p. 1). Communication related to fire prevention messages has aspects of both information and motivation, but tend to emphasize the latter.

It is not enough, of course, to simply transmit a message. If communication is to be effective, the set of meanings included in a message must be so clear that the person or persons for whom the message is intended attach precisely, or nearly so, the same meanings to the signs and symbols used as did the sender of the message. This was and is a source of the problems related to fire prevention messages. The language and pictorial and other symbols used in fire prevention messages did not convey the ideas to the fire-setting publics that they were intended to convey. Symbols sometimes have a deeper meaning than their obvious connotations. Certain words or pictures, for example, take on unique and different meanings for some persons---Smokey the Bear did not "project" as well in the high fire areas as he did in the low fire areas studied.

The problems of communication are commonly recognized but often ignored by those with messages to communicate. The purpose of our research was to determine whether much of the communication effort being expended was worthwhile. The test of communication is feedback and the performance of firesetters in certain communities did not indicate a positive response to fire prevention messages. This was the research challenge.

Potential of Mass Media for the Communication of Fire Prevention Messages

Information obtained indicates that almost every individual in fire setting communities has access to a radio or a TV set and to some type of printed material. In the communities studied more than four out of five families, even in the poorest areas, owned a TV set in working order and very few did not have a radio (Griessman and Bertrand, 1967, p. 11). About two-thirds of the adults in so-called "target" communities also read newspapers and/or magazines regularly.

A final mass media source for fire prevention messages is signs or posters placed along roads, in store windows or in other public places. Access to these messages will be dependent upon the frequency with which individuals use the places or facilities where the signs or posters are. However, a conspicuously located message will come to the attention of almost everyone in a community sooner or later. Obviously, the mass media have a high potential for reaching forest fire setters.

The Dissemination of Fire Prevention Material via Mass Media---Investigations were made to discover how frequently fire prevention messages were included in the programs of radio or TV stations and in the offerings of newspapers. The setting of these investigations was communities with high fire occurrence rates.

Careful study of the files of typical newspapers reaching into high fire occurrence communities revealed that about eight percent of the issues of a daily paper over a five-year period carried a fire prevention message (Altobellis and Shilling, 1966). Weekly papers had a slightly higher percentage of issues with prevention messages during the same period, ranging from nine to 18 in the papers studied. Prevention messages were most likely to appear during the fire season (October to April) and were more likely to include a caution or plea than any other type of message.

A survey of local radio and television station programs indicated that all occasionally used fire prevention spot ad material in public service slots. However, none did so on a systematic or planned basis. No radio logs were available, but the representatives of radio stations estimated they used fire prevention spot ads from once a month to as little as once or twice a year. Furthermore, all claimed randomness of timing of broadcasts.

A study of the logs of TV stations indicated that from 3.0 to 5.5 percent of their public service announcements during a year were on fire prevention topics. Their announcements were likely to be programmed before 10:30 a.m. or after 10:30 p.m. The number was relatively constant on week days and the frequency of broadcasts decreased on Saturdays and Sundays.

The USDA Forest Service appeared to be the only organization that maintained a planned system of permanent forest fire prevention signs and poster boards. State forestry agencies had activity of this nature but it was unsystematic. Interviews with knowledgeable personnel of the USDA Forest Service revealed that signs were placed in strategic places (for hunting, near dumps, near recreation areas) but were frequently vandalized. There was no indication of their effectiveness. Apparently, non-permanent signs were not considered too satisfactory and were distributed rather haphazardly.

It is evident from the above findings that residents of high fire occurrence communities are not "bombarded" with fire prevention messages through the mass media.

Reception of Fire Prevention Messages---In keeping with research on the communication of fire prevention messages through mass media sources, it is relevant to ask if the members of target communities hear or see such messages. Research was done in one community with the objective not only of determining if fire prevention messages had been received but also the specific way in which the message had been received (Griessman and Bertrand, 1967, pp. 15-18).

In the above study 64 percent of the adults interviewed had been exposed to some sort of a mass media communique regarding forest fires during the past six months. Television was the medium most frequently indicated as the source of fire prevention messages; 58 percent of the interviewees reported having viewed such a message. In fact, many persons could recall portions of the spot announcements they had seen or could remember a message delivered by Smokey the Bear. Interestingly, some persons recalled the telecasts of forest fires which had raged in California the summer before the study was made.

The second most popular channel for the reception of fire prevention messages was signs and posters. Over two-fifths of the persons interviewed recalled having seen road-side signs or window posters with a fire prevention message. Several of these persons could quote the message they had read from memory.

Newspapers and radio ranked quite low as sources for the fire prevention messages that had been received. About one out of every ten adults in this area was reached by radio with a fire prevention message.

Effectiveness of Mass Media Fire Prevention Messages

Reception of a fire prevention message via mass media does not necessarily mean that the message is correctly understood or accepted. For this reason we probed for evidence of the effectiveness of mass media advertising. The first probe technique utilized was designed to test for "selective perception," a term used to indicate a tendency on the part of individuals to "see" or "hear" only those things in communications which are in accord with their existing attitudes and interests. It was assumed that the persons exposed to fire prevention messages through the mass media would react in terms of their practices and beliefs. Those who set fires or were in favor of setting fires were expected to perceive the messages incorrectly, or to recast and interpret them to fit their conceptions.

The Interpretation of and Reactions to Fire Prevention Slogans---Three different approaches were used in an attempt to determine the degree and significance of selective perception of fire prevention messages by persons living in communities in fire areas. The first was to read four widely used fire slogans to respondents and to ask them to interpret the meaning of each slogan. These slogans were: (1) "Forest Fires Destroy Watersheds;" (2) "Please, Only You Can Prevent Forest Fires;" (3) "Fire Destroys Wildlife;" and (4) "The South is Robbed by the Malicious Woods Burner: Help Stop Him." Almost every person interviewed correctly interpreted slogans two and three. However, only about two out of every five persons gave a correct interpretation of slogans one and four. This pattern of responses was attributed to the problem of semantic clarity, in that the wording of slogans one and four dealt with more abstract ideas.

In keeping with the selective perception theme, reactions varied even though a correct interpretation of the slogan was given. The reactions followed certain patterns, which were delineated as follows:

(1) The slogans were understood but provided stimuli for a negative response. In such instances it was clear the respondent understood the message but disagreed with it. The negative attitudes could stem from beliefs in the benefits of fire or from an unhappiness with fire control agencies. In either event, it is clear that the message did not accomplish its intended purpose.

(2) The slogans were understood and provided stimuli for a positive response. It is encouraging that a majority of the responses obtained were classified in this category.

(3) The slogans were misunderstood and provided stimuli for negative response. In such instances it appeared that the individuals were not sure what the slogan was depicting, but were sure it was the work of a fire control agency. Their negative reaction was elicited by their feelings toward such agencies.

(4) The slogans were misunderstood but still provided stimuli for a positive response. This seems a paradox but is explained by the fact that some individuals favoring fire control did not understand the message of a slogan but did know its intent.

(5) The slogans stimulated value judgments distorted in terms of the orientation of the respondent. In some instances the individuals being interviewed refused to offer an interpretation of the slogans read to them. However, they did offer commentary on the fire problem, positive and negative. Obviously comments made by an individual reflect his feelings, which in many instances turn out to be ambivalent. For example, a person might agree that fires should be controlled, but at the same time express the view that woods burning is a good way to keep pests and snakes away.

All in all, the findings of the study indicate that selective perception is much in evidence when local inhabitants of forest regions are confronted with fire prevention messages. They almost invariably make interpretations in keeping with their views and beliefs. The fire prevention planner who is not aware of these factors will have difficulty preparing an effective program.

Interpretation and Recall of Advertising Symbols---The second approach used in the determination of patterns of selective perception was more general in nature. It was designed to determine the effectiveness of special mass media approaches such as symbols and signs.

During the course of this particular study, the respondents were requested to identify, on the basis of photographic reproductions, six advertising symbols. The symbols selected for the experiment were the Greyhound (Greyhound Bus Lines), Elsie the Borden Cow, the Jolly Green Giant, Smokey the Bear, the RCA Dog and Phonograph, and the Chevrolet emblem (Griessman and Bertrand, 1967, pp. 25-28). The organizations represented by the symbols were varied so that a cross-section of mass media symbols used in the U. S. would be presented.

The majority of the symbols used in the experiment had been in use longer than the fire prevention symbol. Each, with the exception of "Smokey," was promoted by means of commercial advertising. Smokey the Bear usually appeared in the mass media as a public service feature.

The fire prevention symbol, despite the disadvantage of its relatively brief national exposure on a non-commercial basis, fared quite well when compared with the other symbols. It was found that 82 percent of the subjects knew the name of the fire prevention symbol and could tell what was symbolized (e.g., "fire prevention," "forestry," "the Forest Service"). An additional seven percent of the respondents made partial identification; that is, they knew what was represented but did not know the name of the symbol, or vice versa. Only 11 percent of the respondents had no apparent conception of the identification or meaning of the fire prevention symbol. It is significant that the average age of these latter persons was 70 years.

The fire prevention symbol ranked second in terms of relative frequencies of respondents' correct identification when partial or incomplete responses were omitted from tabulations (Greyhound, first; Elsie the Borden Cow, third). When partial or incomplete responses were included, the number of correct identifications was exactly equal for Smokey and Elsie (Greyhound, third).

The above finding leads to an important conclusion and at the same time raises questions which need further study. It is reassuring to learn that Smokey the Bear is as well known as other popular advertising symbols and that his message is understood.[7] In fact, in the areas studied Smokey seems to have done his job very well. However, his job is simply conveying a message. The problem that remains is how to motivate those who receive and understand his message to act accordingly.

Perception and Interpretation of

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[7] *These findings are comparable with those of a nationwide study of Smokey the Bear. See* **Public Image of and Attitudes Toward Smokey the Bear and Forest Fires,** *Forest Service, U. S. Department of Agriculture, June 1968.*

Fire Prevention Posters---The final approach to the testing of selective perception utilized posters. Fire prevention posters were placed at conspicuous locations in the study area. Two weeks after installing the posters the field work began.

During interviews, each subject was asked, "Are there any fire prevention signs or posters around here?" Then each person who answered affirmatively was asked, "What does the sign say?" and "Is there a picture on the sign (or poster)?" If these questions were all answered affirmatively the respondent was requested to describe the poster. Then the interviewer displayed photographs of four fire prevention posters, one of which was the correct choice. The respondent was asked, "Have you seen one of these in the neighborhood or not?" Upon replying, "Yes," the respondent was asked to identify the one he had seen.

One element of the experiment proved to be of little value. Very few of the respondents would even attempt to describe the poster. Often those who did obviously confused it with other signs and posters in the area. Thus, this part of the experiment, which had been designed to make possible a measure of selective distortion (that is, the manner in which subjects distort messages to "fit" their interpretations), had negligible utility.

A further limitation of the experiment stemmed from the necessity of having to make the dubious assumption that all individuals would have had equal exposure to the posters. An attempt was made to place the posters in conspicuous locations in the community. However, residents did not all travel by the poster sites the same number of times. Some respondents probably never had the opportunity to see the posters at all.

The second phase of the experiment involved asking school children to identify a fire prevention poster on the basis of individual recall processes. Several copies of the poster used in the experiment were placed in conspicuous places along hallways of the high school. The fact that these posters were an element of the perception-recall experiment test was not divulged to the students. On the day of the experiment all 50 ninth graders enrolled in the school were brought into one room. One by one these students were shown photographs of four posters and asked to choose the one they had seen.

Less than half the school children tested could correctly identify the posters. The significance of this pattern of responses is not too clear, but it does suggest a problem inherent in this method of communication.

One discovery made in connection with the poster studies does appear to have clear significance: the highest incidence of correct identification was by persons with favorable attitudes toward forestry, and with higher incomes and higher education. This is in keeping with many earlier findings that socio-economic factors are related to given behavior patterns.

Conclusion---Most individuals in areas of high fire occurrence have access to mass media channels. However, these channels do not systematically deliver prevention messages. Also, the messages they do deliver are not always at a convenient time or in a readily understandable form. It is apparent that some good is done, but far less than might be hoped.

Potentials of Interpersonal Associations for the Communication of Fire Prevention Programs

Many studies have indicated that informal sources can be more powerful than formal sources of communication in getting a new idea accepted. For this reason, studies were done to determine the access of residents of high fire areas to informally delivered fire prevention messages. An attempt also was made to assess the effectiveness of such experiences.

Access to Informal Sources of Fire Prevention Messages---Residents of rural communities, at least potentially, have an opportunity to hold conversations with or hear persons representing the various forestry agencies. In keeping with this thought, an effort was made to determine what percentage of adults in communities of the above type knew and had occasion to informally interact with either state or federal forestry agency representatives.

The first effort in the interest of determining the access that residents had to forestry agency personnel was devoted to finding out how many contacts agency representatives made on their own. Unfortunately, there was a paucity of substantive information on personal and organizational contacts by agency representatives. One major study of this type (Altobellis and Shilling, 1966) found that the U. S. Forest Service was the only agency that kept systematic records of "contacts" by key personnel. A perusal of the records kept by this agency showed that a total of 50-60 contacts were reported annually for a five-year period, 1960-1964. These contacts were with groups as well as with individuals, but they did stress fire prevention in some way.

The second approach to determining the access of local residents to forestry agency employees was to ask the residents themselves about their interaction with rangers and other agency employees. In one study, one out of three respondents had been in contact with forestry agency personnel within the past month. Of the remainder, one out of four had been in contact within the past six months and, for one out of ten, it had been at least a year since such a contact had been made. Fifteen percent of the respondents said they never had occasion to speak with forestry agency personnel (Jones, Taylor and Bertrand, 1965, pp. 17-18).

In a second study, where an attempt was made to determine the acquaintance of the local populace with forestry personnel, essentially the same finding was reported (Griessman and Bertrand, 1967, pp. 12-13). The presence of forestry personnel was known in the local community, but there was not a close liaison between the personnel and community residents.

When the range of contacts is extended to include agricultural agency representatives, such as the cooperative extension service, the picture does not improve substantially. A study in Mississippi determined, for example, that less than one-third of heads of households had three or more such contacts during one year (Baird, Robinson and Jones, 1969).

The findings relative to the access that rural residents have to informal sources of communication about forest fire prevention do not suggest that this has been an effective approach. This discovery indicated the need for more in-depth study of the informal communication process.

Local Opinion Leaders and the Informal Communication of Fire Prevention Messages

After determining that the mass media and informal interaction did not effectively operate in the communication of fire prevention messages in high fire occurrence communities, we decided to study local patterns of communication for clues to a more efficient approach. The problem faced was that of isolating and classifying factors essential to the communication of messages in neighborhood groups. The findings of previous research of a non-fire prevention nature suggested that informal social relationships were significant in modifying the manner in which a given individual would act upon a message coming to his attention via mass media. Therefore, it was conceived that fire prevention messages would have to be transmitted by local actors in a local setting to be effective in communities representative of the study locale. This point of view was in keeping with a theory proposed by Paul Lazarsfeld and his colleagues (Lazarsfeld, Berelson, and Goudet, 1948). They suggested that communication on certain issues and in certain settings is not a direct process but rather a two-step flow of information. The first step involves the interception of messages from TV, radio, and press; the second is the interpretation of these messages by local influentials to actors within local settings, such as homes, neighborhoods, and communities.

In sociological parlance, the interactional mechanisms through which a message is processed are reciprocal role relations. Roles, as structural parts of status-positions, serve to link two positions. With this frame of reference in mind, it was conceived that the status-position of an opinion leader could serve as the focus for the second step in the two-step flow of communication, because it ostensibly contained a communicator role in its make-up. This assumption set the stage for a study done by Dickerson and Bertrand (1969).

In the course of their investigation, the above researchers found that the flow of communication is more complicated than indicated by previous studies. A message would only be successfully communicated when it was translated through local opinion leaders. Said another way, wherever the message might originate, it had to be introduced, legitimized, and diffused locally. Initiator roles played by local leaders served to introduce the message by linking the local area with the outside. Local leaders served as the port of entry for new ideas and ways of behavior. Legitimizer roles served to validate and reinforce the worthiness or unworthiness of the innovation to local persons. Diffuser roles were the vehicle by which the validated message was disseminated to the rank and file of community membership.

An Experimental Communication Approach to Fire Prevention

The findings of the studies of firesetting areas and of their residents suggested a program approach which professional foresters had recognized and some had practiced in varying degrees.[8] Sociologists became involved in the planning and evaluation of such a program in Louisiana, and their findings are reported here to serve as an example of how the results of research and experience can be used in an applied and practical effort.

The Rationale for a Contactor Program---Most large organizations, such as state forestry commissions and the USDA Forest Service, pay particular attention to their relationships with their publics and attempt to maintain a good public image. This is particularly true of those organizations that depend on the cooperation of the public for achievement of their objectives. Obviously the success or lack of success of forest protection agencies in achieving goals related to reduction in the number of forest fires is very much related to the image that they project and to the success in selling their fire prevention message.

It was clear that previously used tactics had not been successful. The studies conducted had shown that mass media methods did not get the fire prevention message across to all of the residents in woods burning areas and that these residents responded best to face-to-face communication. This was the basic rationale for the contactor program.

The Nature of the Contactor Program---The essence of the contactor program that was planned, implemented and evaluated was personal contact with the heads of households living in high fire rate communities. Contacts of this type were planned so that the fire prevention message could be delivered firsthand and tailored to the demands of each individual family group.

In the experimental program that was launched, local residents were employed by the state forestry commission to contact each household in a given area. These men worked two to four hours per day during the fire season. Their function was to explain the approved practices in regard to fire setting and to offer the state forestry commission's aid in controlling any fires that residents felt they needed to set on their own property. In this way a link was forged between the forestry commission and every family contacted in the area or community. It is important that contactors were members of the community and were therefore accepted by its residents. However, they were paid and trained by the state commission and presumably were dedicated to getting the fire prevention message across to the local public. public.

Results of the Contactor Program---The contactor program in Louisiana showed unqualified success as measured in terms of goals, costs and returns (Doolittle and Welch, 1973). The program directly contributed to reduction of the number of wild fires in the target area by about 50 percent during the first two complete years of its operation. It can be concluded that personal contact, which included face-to-face communication of the fire prevention message, was very effective. The implication of this conclusion is far-reaching for future fire prevention programs.

Criteria of a Successful Contactor Program---Two factors were of special importance in the success of the contactor program. The first was the choice of a "contactor." For such a person to be effective he must be acceptable to both the local people and to fire prevention agencies. A successful contactor must provide legitimization for fire control. The basis of his acceptance could be his personal reputation in the community, the standing of his family as "respected people," his own diligence and hard work, his contributions to community projects, or his pleasing personality. In short, the successful contactor is one who is regarded as a leader, philosopher, and friend to most of the people in the community. Recognition of a person with the above potentials necessitates an appreciation for use of local influentials who can suggest suitable persons for the position. Probably a successful contactor will be acceptable to, but not necessarily aligned with, all the community power figures.

The second criterion necessary for success of the contactor program is the type of "message" given contactors to get across. Messages with negative tones ("don't burn the woods") are difficult to sell successfully. On the other hand, a message in the nature of advice on when to burn (if burning is necessary) or in the nature of offering help in plowing fire lanes around land which is to be burned is likely to be positively received. Finally, the contactor's ability and conversational skill in introducing noncontroversial matters of mutual interest during the course of his visits is of paramount importance. He must establish rapport and trust.

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[8] *Referred to as the "contactor" program, it was pioneered in Mississippi by the Mississippi Forestry Commission. No sociological evaluations have been made of the use of this technique in Mississippi.*

In summary, given the type of persons living in high fire rate communities, messages communicated personally and in a helpful vein by a respected person are more likely to be heeded.

Concluding Statement

Research findings cast doubt as to the effectiveness of past efforts to communicate fire prevention messages---particularly where the mass media are employed in areas of high incendiarism. Obviously, the one-to-one approach of a contactor-type program is more personal and therefore more flexible and convincing than that of other media. But personal contact is time-consuming and expensive if done extensively, and it may not be necessary or even appropriate in some instances.

Doolittle pondered the problems of communicating fire prevention messages and, drawing upon the findings from fire prevention studies and the much larger field of general communications research, suggested a professional, systematic approach to planning and implementing communications at the local level (Doolittle, 1972). The process he recommended goes through six stages: (1) audience analysis, (2) selection of objectives, (3) message design, (4) media selection, (5) selection of a communicator and (6) evaluation. Conscientiously applied, this process should contribute significantly to correcting some of the problems revealed by previous research.

The Social Control Aspects of Forest Fires

The prevention of forest fires boils down to a problem of social control. The fact that people have continued to set fires indicates that social control strategies have not been fully effective in the past. This fact has not been lost to social science researchers, and almost all of their studies have included some effort designed to determine why normally effective sanctions did not work well in areas of high fire occurrence.

The Nature and Importance of Social Control

The point has been made that the sociologist perceives behavior in given societies as being patterned or ordered. However, we have not made clear how desirable patterns of behavior are maintained at a level sufficient for predictability and social organization. Often individual behavior exceeds the limits construed as acceptable by the members of a given social or societal system.

When this happens, processes of control are invoked in an effort to bring the behavior of deviants, or non-conformers, back to acceptable ranges. These processes are frequently in evidence, although not too well understood. They are illustrated by such actions as the use of physical force, the use of economic reprisals, or the use of socio-psychological ploys such as reproof, ridicule or ostracism in attempts to get individuals or groups to behave in more acceptable fashion. Obviously, there is a need for social control, else we would not invest certain positions with disciplinary roles (such as fathers, coaches, or teachers) or we would not have societal sub-units especially charged with a social control function (such as police departments, sheriffs' offices, and the F.B.I).

There are at least two major sociological reasons why individuals or groups deviate from the behavior patterns that are considered normative and acceptable. In simple terms, the first is lack of socialization and the second is improper socialization. Socialization is the process whereby one learns the behavioral requirements for becoming an acceptable and functioning member of his society. Thus, when there is no opportunity to learn correct ways of behaving, it follows that behavior will likely be deviant or non-conforming. Also, if one is taught that a practice is acceptable in one setting (such as in his family or community) but the practice is not acceptable by the greater society, he will be judged as deviant at the latter level.

Whatever the explanation of deviance, and there are psychological explanations (such as mental deficiency) as well as sociological explanations, it cannot be tolerated beyond certain levels if harmony in social relations is to be maintained. This is the justification for the various types of regulatory codes that are part of the structure of all social systems, and also for the evaluator and disciplinary roles played by specified members of all social systems.

In the context of forest fire prevention research, social control in fire-setting communities was viewed in the following manner. First, it was perceived that the socialization processes in these areas tended not to stress the fire prevention and conservation goals espoused by the greater society (as represented by forest agencies). Thus, deviant behavior in the nature of fire-setting could be understood and explained in terms of both lack of socialization and improper socialization. It was also perceived that social control practices related to incendiarism would be minimal at the local community level for the same reason that fires were tolerated.

The Nature of Formal Fire Control Statutes

There is, at the present time, no common body of federal law that relates to woods burning on land other than that under the exclusive jurisdiction of the United States. However, each state where burning has been identified as a problem has statutes related to this type of behavior. Eleven of the thirteen

Table 2. Analysis of State Fire Control Laws, Southern Region.[1]

	Alabama	Arkansas	Florida	Georgia	Kentucky	Louisiana	Mississippi	North Carolina	Oklahoma	South Carolina	Tennessee	Texas	Virginia
STATE CHARGED WITH FOREST FIRE CONTROL													
State Lands		*											
Private Lands		*				*							
All Forest Lands	*		*	*	*		*	*	*	*	*	*	*
DISPOSITION OF FUNDS													
Receipts to General Treasury						*					*		
Receipts may be used to carry on the fire program	*	*	*	*	*		*	*	*	*	*	*	*
CIVIL SERVICE STATUS													
Applies to all forestry employees	*					*							
Applies only to designated levels				*	*								
WARDEN'S DUTIES AND POWERS													
Control and extinguish forest fires	*	*	*	*	*	*	*	*	*	*	*	*	*
Enforce forest fire laws	*	*	*	*	*		*	*	*	*		*	*
Enter lands without liability for trespass	*	*	*	*	*	*	*	*	*	*		*	*
Have powers of Peace Officer to enforce fire laws	*	*	*		*				*				*
Arrest without warrant	*	*	*	*	*			*		*			*
PROTECTION DISTRICTS													
Authorized													
Specified by law													
By vote of residents or local authority			*	*		*						*	
Designated by State Forester/State Fire Marshall	*	*	*	*	*	*	*	*	*	*	*	*	*
IMPRESSED LABOR FOR FIRE FIGHTING													
Persons required to fight fire					*		*	*			*		*
Equipment to fight fire					*		*	*					*
CLOSURE OF WOODS PUT INTO FORCE													
By law													
By official proclamation	*		*	*	*	*	*	*	*	*	*	*	*
LIABILITIES													
Political subdivisions may appropriate	*			*	*			*	*		*		*
Political subdivisions liable for part of cost					*								*
Landowners liable for all or part of cost of suppression and damages if negligent	*		*	*	*		*	*	*	*	*		*
PROSECUTION													
State forestry personnel investigate	*	*	*	*	*	*	*	*	*	*	*	*	*
Local law enforcing officials investigate	*	*	*		*			*					
State Forester prosecutes			*		*			*	*	*		*	*
Local law-enforcing officials prosecute	*	*	*	*	*	*	*	*	*	*	*		*
Authority to subpaena witness or administer oaths													
Justice of Peace jurisdiction	*	*	*		*	*	*	*		*	*		*
Magistrate Court, Local													

	Alabama	Arkansas	Florida	Georgia	Kentucky	Louisiana	Mississippi	North Carolina	Oklahoma	South Carolina	Tennessee	Texas	Virginia
BURNING PERMITS REQUIRED													
Subject to Air Pollution Control Regulations		*	*	*		*		*	*	*	*		*
Notification of intent to burn	*	*	*	*	*	*			*	*			
In fire season										*	*		
Unless ground covered with snow													
Unless on cleared ground													
Specified hours of the day			*		*			*		*	*		*
Specified months of the year					*			*			*		*
Unless specified distances from flammable material											*		
Permits may be required by State Forester in emergency													
SLASH DISPOSAL (Permit Laws Apply)													
Burning and deposition subject to Water & Air Pollution control regulations		*	*	*	*	*	*	*	*	*	*	*	*
No flammable material left													
No flammable material near railroad													
No flammable material near highway													
Disposal may be ordered or required					*	*							
Disposal may be taken over by State Forester													
Snag felling required													
Disposal of extra hazard required													
SAWMILLS													
Portable sawmills licensed and regulated													
Spark arresters required on steam and internal combustion engines for mill power supply	*				*	*							*
No flammable material near													*
Conditions specified in contract													
RAILROADS													
Spark arresters required	*		*		*	*						*	*
No ashes on Right-of-way													
Right-of-way must be clear of brush					*	*							*
Land adjacent to Right-of-way cleared					*	*							*
Maintain patrols													
Employees' certain duties and powers			*		*	*							
Liable for damages			*	*	*		*		*	*	*		*
Liable for cost of fire fighting	*		*	*			*				*		*
Fire is prima facie evidence of negligence							*						
SMOKING													
Restricted or forbidden in woods during closed season					*								*
Lighted cigarette, etc., not dropped in woods			*		*								*
Lighted cigarette, etc., not thrown on highway			*		*		*		*		*		*
Lighted cigarette, etc., not thrown from train			*		*								

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[1] Prepared by the Division of Cooperative Forest Fire Control, Forest Service, U.S. Department of Agriculture, 1972

states in the Southern region are charged with the responsibility for forest fire control on all forest lands within the state (Table 2.). Arkansas is charged with forest fire control on state and private lands, while Louisiana is charged with fire control only on privately owned lands.

Certain types of statutes are present for all states (U. S. Department of Agriculture, 1972). However, those most relevant to the incendiary fire problem pertain to prosecution. In all thirteen states, state forestry personnel are charged with the responsibility of investigating wildfire causes. In five other states local law-enforcing officials also are charged with this responsibility. In twelve of the thirteen states local law-enforcing officials have the authority to prosecute. In seven states, however, the state forester also has that authority and in one state, Texas, he has sole responsibility.

The Local Enforcement of Forest Fire Laws and Regulations

Research was planned to determine the way in which the laws were regarded and enforced by local law enforcement officials (McLeskey, 1968). The purpose of this investigation was: to determine the extent to which local government officials responded to the legal norms relating to fire setting, and to determine if practices related to law enforcement made a difference in fire rates.

The sample for the above study was ten counties in Mississippi. These counties were selected in such a way as to represent five sets--each set included one county having a relatively high fire rate and a contiguous county having a relatively low fire rate. It was hypothesized that counties with low fire rates would have more efficient patterns of law enforcement. However, all the counties were under organized fire protection by the Mississippi Forestry Commission.

The principal officials having responsibility for enforcement of forestry laws in each county were interviewed. These officials included the sheriffs, chief deputies and area foresters. In addition, checks were made of court records and other sources of information about the enforcement of forest fire laws. The findings of this study are in brief as follows:

1. Sheriffs and other law enforcement officers generally could not be considered professionals in terms of training and experience. Only two of the ten sheriffs interviewed were classified as professionally trained and both were in counties with low fire rates. This finding immediately suggests that the untrained citizen who seeks and achieves an office with law enforcement responsibility does not perceive his duties in the same way as a professionally trained person. In fact, the researcher for this particular study reported that it was difficult to find a sheriff in a county having a high forest fire occurrence rate who conceived of forest fire as something the sheriff could and should do something about.

2. Sheriffs and other law enforcement officers in counties having high forest fire occurrence rates tended to have negative or neutral attitudes toward law enforcement. By contrast, all sheriffs in counties with low forest fire occurrence rates were perceived to have positive attitudes toward law enforcement. This finding, although limited and preliminary, is highly suggestive of at least one reason why fires persist in some areas and not in others. There apparently is a direct connection between the application of social control, that is enforcement of law, and fire-setting behavior.

3. Sheriffs in high fire occurrence counties tended to be more concerned with political activity than with law enforcement activity. Four of the five sheriffs falling in this class were obviously heavily involved in electioneering or trying to perpetuate what was construed to be rather powerful political machines. This sort of activity was much less evident among sheriffs in counties with low fire rates.

4. Sheriffs in counties with low fire occurrence rates tended to have more knowledge of rules, laws and regulations to be enforced in connection with the control and prevention of forest fire than did sheriffs in counties with high fire occurrence rates. However, there did not appear to be a great deal of awareness of these types of legal norms among law enforcement officials. This finding, again, may be a key to the patterns of behavior related to fire-setting. It follows that if those charged with law enforcement are not familiar with the laws they are to enforce, these laws will not be enforced.

5. Sheriffs had, as a rule, little contact with area foresters or with other state forestry officials and virtually none with U. S. Forest Service personnel. When representatives of different government agencies are in frequent and prolonged contact, there is likely to be a reinforcement of the function of both agencies. Only one of the ten sheriffs interviewed had any continuous contact with a state forester and this was in a county having a low fire rate. It appeared that when a sheriff met with a forester it was on a casual and informal basis and not related to the

fire prevention responsibilities of either. There appears little doubt that a closer liaison between these two types of offices would work in the interest of fire prevention.

6. Arrests, indictments and convictions of forest fire violators were infrequent. Altogether, the ten sheriffs could recall only seven convictions for such offenses during their periods of tenure. These convictions occurred in only three counties out of the ten studied. About 20 arrests could be recalled and all of these had been in six of the counties. Despite the extremely small number of arrests and convictions reported, there was some indication that even these numbers were somewhat inaccurate and exaggerated because of erroneous interpretations. The important finding, of course, is that there is not a great deal of enforcement of forest fire laws.

In concluding this brief review of some of the salient findings of the characteristics and feelings of law enforcement officials in rural areas, several observations by the investigator are in order. First, one can expect to find law officers, such as sheriffs, politically rather than professionally oriented in high fire occurrence counties. Second, the sheriffs in high fire rate counties also tend to have apathetic, neutral, or negative attitudes toward forestry and the control of forest fires. Third, sheriffs in high fire rate counties tend to be less knowledgeable of conservation practices and of forestry officials and their functions. One can readily deduce that the problem of control of forest fires could be reduced if social control processes were more efficient at local levels.

The Climate of Local Opinion Regarding the Formal Control of Forest Incendiarism

Enforcement of forest fire control laws is closely associated with the climate of public opinion in given areas. For this reason, it is important to know what people living in communities with "fire" histories think about forest fire laws and their enforcement. With this thought in mind, opinions on questions relating to this theme were obtained from respondents in several of the communities studied. The findings derived from these queries may be summarized as follows:

1. There is widespread belief that most people living in communities where fires are set know who sets the fires (Jones, Taylor, Bertrand, 1965, p. 22). If this is true, it indicates that there is at least a tacit acceptance of this sort of behavior. It also suggests that such acts are not considered worthy of overt action designed to interfere with the activities of the fire setter. Said another way, there would appear to be few, if any, informal sanctions against fire-setting in many fire areas.

2. There is a belief that forestry agency representatives could not apprehend fire setters easily (Jones, Taylor, Bertrand, 1965, p. 22). This feeling is in keeping with "folk" codes of not informing to legal authorities on friends or neighbors. The effectiveness of such a code has been demonstrated in many instances by the difficulty of getting witnesses to testify in cases involving fire-setting.

3. There is a strong belief that little is done to punish fire setters. This belief is largely founded in fact, at least if past history is to be used as an indicator. Respondents often illustrated their point by noting that fire setters were seldom punished even if they were caught. Residents in areas of high fire occurrence appear to be in favor of fining or imprisoning woods arsonists (Griessman and Bertrand, 1967, pp. 13-15). Such a response is probably more a reaction to the general notion of not condoning law-breaking rather than to the specific act of fire-setting.

4. Forest fires are not regarded as serious by a majority of residents in rural communities with fire histories. At least this was the finding in one study where such a question was asked (Dickerson and Bertrand, 1969, pp. 17-18). Such an attitude, of course, has relevance for the control of fire. There is little doubt that the attitudes of local people are reflected in the behavior of their law enforcement representatives.

5. Respondents in rural communities tend to feel that individuals should not be free to burn the land of others and that woods fires should be regulated by law. This finding comes from a study conducted in a high incendiary area (Bertrand, Heffernan, Welch and O'Carroll, 1970, p. 10). At first glance such a finding seems in contradiction to the expressed opinion that fire problems are not serious. However, large absentee-owned holdings do not appear to be thought of in the same sense as small family holdings, and the respondents to the above type question appeared to be thinking in terms of the latter. This sort of reaction does not, therefore, represent an inconsistency.

In summary, there is a wide range of beliefs among residents in rural communities regarding forest fire laws and their enforcement. Although the majority tend to give lip-service to generally approved ideas and practices, there is much evidence that traditional views remain strong enough to discourage a great deal of effort on the part of those charged with apprehending and punishing violators of forest fire laws. In fact, one researcher concluded from evidence he obtained that there was a real hazard in jailing an incendiarist because his friends and relatives would retaliate by burning, and that negative attitudes toward forestry agencies would be reinforced (Wanger and Baird, 1974).

Returning to the theme of social control, at least two conclusions seem in order: First, there is an apparent relationship between patterns of law enforcement and the rate of occurrence of forest fires. Second, there is also an apparent relationship between the patterns of law enforcement and the attitudes and feelings of local persons towards fire and fire setters. The implication of these two conclusions is that social control can and would be effective if the social climate were such as to demand it.

Social Control Function of Forestry Protection Agencies

Foresters, whether working for state or federal agencies or private firms, are not law enforcement authorities in the usual sense, although some of them have the authority to make arrests. However, the USDA Forest Service and state forestry commissions are charged with police responsibilities related to fire prevention and control.

Little systematic research has been conducted in the area of forestry agency control. However, part of a study conducted by Baird (1970) in South Mississippi was focused on the activities of a Mississippi Forestry Commission area unit and two USDA Forest Service ranger districts. Of the total manhours spent over a two-year period, the state area forester planned over three and one-half times as many hours for fire control as did the personnel of either of the federal ranger districts (see Table 3).

However, the situation regarding the proportion of fire control time allocated for prevention activities was just about reversed (see Table 4). It is clear from this evidence that, when considered with the other aspects of fire control, prevention generally was given low priority.

The information derived from another study of area foresters in Mississippi (McLeskey, 1968) indicated that they were generally knowledgeable as professionals. It also was apparent that they construed law enforcement as an important factor in fire prevention. However, they saw their roles in this connection as primarily related to public relations and technical advice. As previously indicated, the effectiveness of local foresters is hampered by their lack of contact with sheriffs and other law enforcement officials.

It is not altogether clear why professional foresters do not appear to work too closely with law enforcement agencies. No doubt there is some reluctance on the part of local officials to become associated with state and federal agencies. It may also be that no concerted effort has been made by state and federal agencies to work with and through local officials. Whatever the reasons, the evidence suggests that control would probably become more effective if liaison with local law enforcement officials was identified as an important goal for foresters employed by state and federal agencies.

In concluding this very brief discussion regarding the roles of foresters in social control, a note needs to be taken of the public relations function that forest protection agencies perform. One researcher who studied these strategies concluded his investigation with the startling question, "Do forest protection agencies help start forest fires?" (Reynolds, 1972). Although this question was designed to generate thought, it was inspired by the public relation strategies which appeared to predominate among those having forest protection responsibilities. These strategies included: (1) a passive approach, where little in the way of public relations or fire prevention work was done, with the rationalization that these ac-

Table 3. Percentage of Time Planned for Fire Control

	State Area Forester	Ranger District I	Ranger District II
Year 1	70	17	13.5
Year 2	67	12	19

Table 4. Percentage of Fire Control Time Planned for Fire Prevention

	State Area Forester	Ranger District I	Ranger District II
Year 1	9.5	25.6	37.1
Year 2	3.1	37.1	50.7

tivities are "frills" which take up time more profitably spent in other activity, including fire fighting; (2) a conservative approach or strategy, which concentrated on groups already sold on conservation---the better educated, middle or upper class citizen--- rather than on the negatively oriented persons. After review of the above two strategies, it was suggested that an "active" strategy involving every member of a forestry unit in a coordinated effort designed to reach all residents of a host community on a face-to-face basis would be much more effective in the control of fire. This strategy would, of course, require a complete dedication to a public relations goal.

In brief, then, it seems clear that social control, at least insofar as public relations efforts on the part of forest protection agencies is concerned, can stand to be improved. This is no criticism of past forest protection agency practices, simply a suggestion designed to increase the scope and efficiency of their social control efforts.

Problems of Agency Coordination

A comprehensive examination of the forest fire control problem reveals many situations that require coordination both between forestry agencies and between forestry and non-forestry agencies. One example would be when a fire occurs on or near a common national forest and private or state land boundary. Coordinated activity between agencies is required for efficient fire control operations. This coordination ranges from a minimum of reciprocal communications between the USDA Forest Service and state forestry commissions, to a maximum of both agencies channeling all of their fire suppression resources into a joint fire fighting effort. A more sustained but less intense example of coordinated activity would be the dual efforts of two agencies in the area of making regular contacts with the local sheriff's office and rural residents during the course of daily field activity.

With regard to interorganizational relationships, Levine and White (1960) point out that "theoretically . . . were all the essential elements in infinite supply, there would be little need for organizational interaction and for subscription to cooperation as an ideal. Under actual conditions of scarcity, however, interorganizational exchanges are essential to goal attainment." This appears to be the case with the USDA Forest Service and the state forestry commissions. The problem of forest fire, with its potential threat of costly damage to a vital resource, is one of such enormity that numerous agencies and organizations must concern themselves in various degrees with forest fire prevention and control.

Further, Levine and White define "organizational exchange" as any voluntary activity of consequence between two organizations, actual or anticipated, for the realization of their respective goals or objectives. However, very basic problems inherently exist with regard to agency coordination. To start with, there is extreme difficulty in obtaining effective, dependable support from non-governmental organizations. Cooperation is also difficult between government agencies when policy tenets are couched in broad, non-specific terms (i.e. Agency B shall, in every way possible, cooperate with Agency A in the area of forest fire prevention) such that the planned relationship may become meaningless insofar as effective, tangible action is concerned.

There is an awareness now, more than ever, for the need to cooperate for attainment of fire prevention goals. For example, Baird (1970) found fourteen organizations that could be classified as having a major fire prevention role in a county. He further found that the specific fire prevention function activity named most frequently by the organizations (eight of fourteen) was that of cooperating with other forestry and related organizations. However, the three governmental agencies with the greatest ultimate fire control responsibility (two ranger districts and an area forester's offfice) were found to be the ones engaging directly in fire prevention activity. Perhaps, then, these five other organizations were examples of situations in which "lip-service" only was being paid to cooperation and the organizations involved were not willing to take positive steps or initiative on their own.

Another problem of coordination uncovered by Baird (1970) sprang from differing policies among agencies regarding the appropriate control action in various wildfire situations. In this instance the land manager employed by an industrial corporation sometimes pursued a "let-burn" policy on wildfires, where they were judged to be doing more good than harm to company land. In keeping with their official policy of suppressing all uncontrolled or wild fires on protected areas, one or both of the governmental organizations often came to suppress such fires. Situations of this nature are not uncommon.

Wanger and Baird (1974) found that other problems may arise in the course of coordinating activities or because of coordinating activities. According to a rural resident's account of a forest fire, a trash fire escaped the control of a local resident several years ago. The Forest Service arrived on the scene very quickly and in plenty of time to suppress the fire, but took no action because official responsibility rested with the state forestry commission. By the time the Forest Service judged the fire to be a threat to the national forest and began suppression activity, it was too late. Consequently, this was one of the most destructive fires in recent years. Accounts, of course, differed when given by Forest Service employees. The point is not that of accounts but rather to point out the "possible" coordination problems that may arise from attempting to follow policy to the letter in the course of operations.

Wanger and Baird also found that problems may arise because of coordinating activities. The ranger district in the study area entered into a cooperative agreement with the county sheriff's department for extra patrol through the national forest. One rural resident said that "this makes the people feel that the Forest Service doesn't trust them." Several forest workers also expressed displeasure with the agreement because one Forest Service employee was getting overtime pay for patrolling with them, and there was a general feeling that the Forest Service had already been paying enough money to the sheriff's department for the patrolling activity it had been performing. A final problem with agency coordination may result from ignorance or neglect.

In summary, the whole field of agency coordination has areas of potential malfunction. Problems may arise from policy ambiguities or from the policy itself; they may arise when official responsibility or actual behavior is incongruent with policy ideals; or they may arise within the broad spectrum of human elements involved in the process of attempting to fulfill policy. All such complexities compound the overall problems of prevention and control.

Concluding Statement

It is clear on the one hand that neither the local people nor the local law enforcement authorities consider the setting of wildfires on land other than one's own a serious offense. In fact, there is a tendency to define such an act as well within customary and expected behavior. For this reason it is difficult to apprehend and convict incendiarists. On the other hand, the personnel of forestry agencies tend to interpret their control function as limited to public relations activities. At the same time there is little in the way of cooperative and coordinated effort between and among agencies. All in all, one does not have difficulty understanding why the control of incendiarism is no more effective than it is.

Interpretation and Recommendation: Fire Prevention in a Community Development Perspective

Research is but the initial phase of problem solving. The time comes when findings from research investigations must be applied; that is, used in the planning of policy and program strategies. This report would not be complete without suggesting an overall plan or stratagem for reducing forest incendiarism.

One cannot review the material presented in the report without reaching the conclusion that incendiarism persists because it is deeply pervasive in local cultures. Said another way, residents of all ages in areas of high incendiarism apparently perceive fire in a way that encourages its use in a destructive manner. This conclusion, plus the previously rather inconsistent success of fire prevention programs, strongly points to the need for something more effective if incendiarism is to be significantly reduced in the Southern region. We are convinced that the findings presented provide a mandate for what has come to be known as a community or rural development type of undertaking. Such an approach is comprehensive and challenging in its scope, but it holds promise for more lasting effects.

The Nature of the Development Approach

Development as a social science concept, or more precisely the sociology of development, includes three basic notions. The first is the idea of induced or instigated change. Inherent in this notion is a deliberate attempt by an outside group to alter the social structure of a target population; i.e., to change the way people think and act relative to a certain matter---in this instance the use of fire. The second idea of a development program is that it must be oriented toward a somewhat specific mission or goal. Fire prevention could easily represent such a goal. The third and final notion is that development programs are always directed at total communities or areas, never at an individual or small group. Program efforts may be of many types but developmental change is not construed to occur until effects are visible at a total community or area level.[9] With the above thoughts in mind, we turn to the implication of a development approach for an action arena such as that surrounding the forest fire problem in the South.

The Socialization Process as the Key to Development Planning for Areas of High Fire Occurrence

Individuals deviate from expected or acceptable behavior because of either lack of or improper socialization. It is clear from research that residents of areas of high incendiarism continue to set fires on land other than their own because they don't fully appreciate the harm such fires can and do cause, or they feel that benefits derived from such fires override the harm done. This behavior brings to mind two conclusions: (1) the socialization process in local communities is defective in this specific sense; and (2) this defect in the social structure can be remedied by an all-out program designed to adequately socialize all segments of a given population.

Simply recognizing the above does not, of course, elaborate the ramifications of development programs that might be addressed to the proper socialization or resocialization of the residents of a given area. In planning such a program one must be aware that an all-out scheme of this type must be of sufficient magnitude to cover the principal social systems within which socialization occurs---the family, the school, the church, and peer or organizational groups of one type or other. One must also understand that fire prevention agencies usually cannot move directly but must work through individuals, groups and organizations. A program or programs must be designed which will provide access to families, schools, churches, civic clubs and other organizations. Before such access can be obtained it is necessary to establish working relations with appropriate community leaders. This can be done through the formation of what has been termed interstitial or linking groups. These groups must include individuals who can serve in a legitimizing or liaison capacity; e.g., teachers, county agents, or ministers, as well as representatives of forestry agencies.

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[9] *For a comprehensive treatment of the Sociology of Development, see: Alvin L. Bertrand, "Definitions and Strategies of Rural Development: A Search for Coherence and Congruity,"* **Sociologia Ruralis,** *Vol. Xii, No. 3/4 (1972), pp. 233-251.*

The long-time connotation of socialization processes suggests correctly that development goals, such as those related to fire prevention, are achieved over relatively long periods of time. Practices which have persisted over two or three generations, like fire-setting, are not changed overnight.

The challenge of a community-wide development program is much more profound than might appear at first blush. Not only must it include efforts designed to change the way people perceive fire, but it also must be directed toward changing the way people perceive those who set fires. This means, in effect, that the perceptions people have must be changed in such a way that they will define fire-setting as a serious threat to the well-being of their community or area. This is why socialization is the key to development planning. Once this important fact is comprehended, thought may be turned to action programs designed to achieve such an objective.

A Recommended Community Development Plan

The following plan is predicated on the twin assumptions that forestry agencies are strongly enough committed to fire prevention goals to entertain ideas relative to innovative programs and that resources are available or will be redirected to support acceptable programs. With regard to the latter, the plan proposed is presented in outline form, because many details cannot be worked out before the personnel and other available resources are fully known.

The plan calls for the creation of a special unit for community development programs within existing fire control agencies. This unit would have as its mission the design and implementation of an overall development scheme having one major objective---fire prevention---with several major components as follows:

(a) A public school component, whose charge would be to mount a systematic effort designed to acquaint school children and their teachers with fire prevention materials appropriate for each grade level. In mind here is something much more elaborate than current efforts, in that continuing programs frequently would be delivered to all grades and all schools. Units of instruction would be prepared and presented by trained and experienced personnel following rather rigid schedules and working in close cooperation with school faculties.

(b) An adult education component, whose charge would be to work with non-school residents in areas of high incendiarism. The personnel manning this component could well emulate the presently known contactor program, but they would have the additional responsibility of continually working with individuals and groups in an effort to direct thinking and behavior toward fire prevention. It is obvious that an effort of this sort would require the preparation of suitable materials and the careful training of personnel.

(c) A community organization component whose charge would be to work with the leaders and members of various organizations such as churches, civic clubs and fraternal societies. The idea of this component would be to reinforce the adult education aspect of the program. Again, the preparation and presentation of appropriate audio-visual materials would be a vital function. However, the effort would be planned more for groups than for individuals.

(d) A social control or "law enforcement" component whose charge would be twofold: to work with law enforcement officials and local citizens in an attempt to get both groups to better understand the importance of apprehending and otherwise controlling those who deliberately set fires; and, to work as auxiliary law enforcement personnel where this is in order. This activity would obviously call for tact, skill and persistence.

It can be seen that the program outlined above is community or area-wide in its scope. Also, it is systematic and thorough in its attack on the problem of fire prevention.

Elaboration of the Proposed Program

The proposed plan is likely to elicit a negative reaction from some individuals for several reasons: it may seem too costly, it may appear to be little improvement over what has already been done, or it may seem too vast and complicated. Such reactions are more or less natural, but they represent much less formidable obstacles than might be presumed when a perspective for the program is provided.

The program approach recommended has been thoroughly tested in other contexts. Many of the programs of the Cooperative Extension Service follow this general format. Everyone is familiar with the home demonstration club, 4-H Club and other educational activities of county and home demonstration agents. The Public Health Service also makes full use of schools, community organizations and the mass media in promoting programs of preventive health care. Voluntary agencies, such as the Heart and Cancer Associations pursue their goals in similar manner. Each of the above agency types has adopted development strategies that could be studied with a view of making adaptations to fit the resource and administrative structure of forestry agencies.

This notion has been expressed earlier by the Forest Service. A former Chief of the Forest Service, (Edward P. Cliff, 1968) made the following comments in a talk given at the Annual Meeting of the National Association of State Foresters in New Orleans. In pointing up the needs and opportunities of forestry and foresters, Cliff stated:

> *We are indeed on the threshold of a new era of forestry — here in the South and elsewhere, and it seems to me that this new situation in which we find ourselves is tailor-made for developing and instituting a new pattern of cooperation in forestry that will rank with the major breakthroughs and achievements of the past.*

He further pointed out that the job cannot be done by any one organization working alone--- many agencies and groups in our society can contribute something to this effort. In elaboration, he stated:

> *What I am saying is that unless and until we learn to broaden our base and to mesh our efforts with the related work of others, we will see opportunity after opportunity pass us by. We will find that community development and changes in the patterns of land use will take place without the influence of foresters and forestry organizations. We will find that although forestry expertise and participation* **can** *be very effective and very helpful — it is not indispensable. And so, this new era can also become one of withdrawal and non-involvement in which forestry is by-passed.*

The elaborative comments that follow are organized according to particular questions that have been anticipated relative to the program.

1. Is the program really different or just a replay of efforts and approaches already tried? The response to this question can be put in a very positive way although some explication is called for. The program is definitely something different. However, the difference is found in the integrated, systematized, continuous, and intensive nature of the approach and the fact that it will truly provide a saturation coverage for a given area. It is true that some of the old techniques and messages will be used, but in a much more elaborate and persistent manner. Never before has a central office been charged with the planning and coordination of daily fire prevention activities directly aimed at specific audiences in a locale. In this regard, it is not out of the question to contemplate a local headquarters office for the coordination and supervision of personnel, such as is done in the case of the Cooperative Extension Service or the Public Health Service.

2. How much will the program cost; is it within the capability of current budgets and resources? The answer to this question lies in the importance attached to the destruction caused by uncontrolled fires. Expenditures that have potential for alleviating major problems are defensible if they represent savings that offset costs. In this instance, expenses for a fire prevention development unit should not be such as to call for excessive new funds for several reasons. (a) The work conceived could be done, in the main, by presently employed personnel. It is true these personnel would have to be reassigned and possibly retrained, but this is always a continuing process in a large agency. (b) It is likely that the special material needed could be developed by outside consultants and not involve permanent salaried employees. These materials could be used in all localities. (c) When one team was successful in its mission (of reducing the incendiary fire problem) it could be moved to another area. In this way it would not be necessary to support a large number of units. Such a program would cost considerably less than many of the action programs currently funded or under consideration for funding.

3. Would it be possible to gain entry into schools, sheriffs' offices and other places necessary to carry out the program as envisioned?

The answer to this question is that there is no alternative but to gain entry, which suggests the use of certain ploys. Local influentials must be convinced of the worthiness of the cause and enlisted to play legitimizing and diffusing roles. This will call for tact and diplomacy, but the worthiness of the cause and the prestige and social power of forestry agencies will figure prominently. The goal should be to gain the complete confidence of the local citizenry, a feat that usually can be accomplished through participation in local affairs. Each entry obtained in the interest of promoting fire prevention will represent the formation of an interstitial or linkage group between a community system and forestry agency systems. The careful selection of personnel will, of course, enhance this process. A man or woman locally accepted will be much more effective than a stranger.

4. What approaches should be used in the implementation of the program? The planner contemplating the design of a community development program should be aware that two major approaches tend to be followed. In the United States, the so-called "self-help" approach is very popular. Under such a scheme the action social system (here, forestry agencies) attempts to get members of target community groups to "educate" themselves. This can be done by successful enlistment of appropriate leaders. Successful enlistment implies that one has both an appreciation for and a commitment to an issue or a cause. An example would be getting a teacher to do the work called for relative to a fire prevention unit of instruction.

The second approach to community development is known as the "centralized planning" approach. It assumes that it is better for the representatives of an action agency to carry the burden of the program of change entirely upon themselves. Referring to the above example, the unit of instruction designed for a particular class would be given by the forestry agency employee, not the teacher.

Each development program approach has its advantages and disadvantages, which have to be weighed by the planner. The self-help approach takes longer but is less costly and tends to make the problem of legitimation easier. Some combination of the two approaches can generally be worked out for specific client groups.

Whatever approach is decided upon, development programs depend on the recruitment of three classes of actors---legitimizers, diffusers and implementers. Legitimizers serve to credit the objectives and goals of the program in the eyes of the local populace; diffusers serve to transmit the intended "word" throughout the target population; and implementers do the work associated with the action aspects of the program.

5. What about evaluation---how could the success of such a program be determined? Evaluation is an essential but often overlooked part of planning and development. In the case of the proposed program, a marked decrease in the incidence of and damage done by fires would provide evidence of success. However, many factors influence fire occurrence and intensity; weather, in particular, can cause significant fluctuations. The evaluation scheme would need to include provision for recording and analyzing weather parameters and other known and suspected determinants of fire occurrence. A significantly reduced rate that could not be explained by changes in other influencing factors would signal initial success of the development program. Even then, the lower rate should be maintained for a period of time (3 to 5 years, perhaps) before the intensity of the effort is diminished. At that time, the locally-based development unit could be transferred to another area or assignment, but the parent organization should closely watch the area to assure that the situation does not deteriorate to the pre-program state.

The Proposed Action Program in Summary

The sociological research done under the auspices of the Southern Forest Experiment Station of the USDA Forest Service and the State Forestry Commissions of Louisiana and Mississippi provides a depth and breadth of understanding of the forest incendiary problem in the South not heretofore fully comprehended. The gist of this understanding is: *the problem of incendiary fire prevention must be attacked on a broad community or area-wide basis if it is to be coped with successfully.* This conclusion, fully supported by the information derived from the investigations, at once explains the uneven success of past programs and suggests a new program strategy in keeping with the concept of community or area development. Such a strategy is proposed for consideration by those having responsibilities in connection with forest fire prevention policy and program formulation.

Concluding Statement

The scope of the "total" approach to fire prevention programming outlined in this chapter calls for a major commitment to prevention on the part of those organizations (primarily public) charged with the perennial task of renewable resource protection. To put it most strongly, it suggests a commitment transcending that normally associated with programmatic efforts of relatively short duration. Upgrading of the prevention job or role, per se, and enhancement of career opportunities to develop qualified personnel would be a start in this direction. In essence, fire prevention practice must be institutionalized in fire control organizations at least on a par with that level traditionally reserved for fire suppression (Dixon, 1971).

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FINISHING STEERS ON RYEGRASS-CLOVER PASTURE WITH SUPPLEMENTAL GRAIN

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Finishing Steers on Ryegrass-Clover Pasture with Supplemental Grain

Introduction

Beef cow numbers in Mississippi increased from 712,000 in 1954 to 1,285,000 in 1974 and Mississippi currently ranks tenth among all states in the number of beef brood cows. Even with the rapid increase in numbers of feeder cattle, finished beef production in the state is far less than total beef consumption.

The traditional market for Mississippi-produced feeder calves has been adversely affected by recent high grain prices. This and other factors have stimulated interest in other methods of finishing beef. Finishing cattle on grass is a relatively "low-risk" enterprise in which minimums of fixed expenses and labor are required. The natural resources and climate of South Mississippi are especially adapted to the production of high quality winter annual forages, making the area a "natural" for finishing beef on pasture.

Programs for finishing beef on grass become economically more feasible as (1) grain becomes more expensive; (2) consumers create a market for USDA Good beef and demand less fat on cuts of meat; and (3) when a relatively large number of cattle on farms is coupled with a relatively low number on feed to cause a favorable price spread between feeder calves and finished beef.

Workers at other research stations in the Southeast (Wise *et al.*, 1965; Carpenter *et al.*, 1968; Huffman, 1974) have demonstrated that quality beef can be produced on pasture supplemented with grain. However, grass-fattened beef has generally been discriminated against, principally because its fat is sometimes yellow colored.

The objectives of our experiment at the South Mississippi Branch Experiment Station were to study the effects of grain supplementation on animal performance, carcass quality and consumer acceptability of retail cuts of beef and to evaluate the economic feasibility of finishing steers on winter annuals.

Effects of Grain on Animal Performance and Carcass Traits

Experimental Procedure

A 150-day trial was conducted usng 36 long yearling steers (Hereford, Beefmaster *x* Hereford and Angus *x* Hereford) in a completely randomized design.[1] The steers were grazed on ryegrass-crimson clover pasture and were sorted by breed and weight into three groups that were fed as follows: (1) no supplemental grain (control); (2) cracked corn fed daily at one percent of body weight throughout the trial; and (3) cracked corn fed daily at one percent of body weight for the last 64 days of the trial. Each treatment consisted of two five-acre plots containing six steers each.

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[1] *Average weight of the steers following a 24-hour withdrawal from feed and a 12-hour withdrawal from water was 501 pounds.*

Pastures were seeded in October, 1974 at a per acre rate of 30 pounds of ryegrass and 15 pounds of crimson clover on a prepared seedbed of Lewiston very fine sandy loam soil. Fertilizer at a rate of 24-72-72 pounds of N-P-K, respectively, was broadcast before planting. Each plot received an additional 67 pounds of nitrogen per acre in November and again in March.

Forage samples were taken diagonally from each pasture at intervals of 30 yards and at a height of one inch. The samples were hand separated and dried for determination of percent composition of ryegrass and crimson clover, crude protein content, (A.O.A.C., 1970) and estimated digestible dry matter (Van Soest, 1963).

All steers were wormed, vaccinated (IBR, BVD, PI_3)[2], treated for external parasites and implanted with 24 mg DES immediately before being placed on pasture on December 17, 1974. Salt, minerals and water were supplied free choice and grain was hand-fed each day.

The initial and final weight of each steer was taken following a 24-hour withdrawal from feed and a 12-hour withdrawal from water. Each steer was weighed directly from the pasture at 28-day intervals. At the end of the trial, the steers were hauled to a nearby packing company where they were slaughtered. Pertinent carcass data were determined 96 hrs. after slaughter.

Quality evaluations were conducted on one three-fourths-inch-thick rib steak from each carcass. Each steak was properly packaged, frozen and stored in freezers. The steaks were removed from storage, thawed and broiled about six inches below the heating unit in a conventional electric oven that had been pre-heated to 400°F. The steaks were turned when the internal temperature reached about 110°F and were removed from th oven when the interna temperature reached about 150°F Five cores of one-inch diamete were removed from each steak fo taste-panel evalution and Warne Bratzler shear tests.

Five trained panel members eac received a pre-heated plate containing two cores from each of fiv steaks.[3] Each core was coded s that it could not be associated b panel members with any particula steak or with any other core.

The panel scored the steaks on hedonic scale with nine ratings ranging from (1) "dislike extremely" to (9) "like extremely" fo juiciness, flavor and overall tast satisfaction and from (1) "extremely tough" to (9) "extremely tender for the tenderness value. The taste panel values for each steak wer determined by averaging th scores assigned by the fiv members of the taste panel.

Analysis of variance (Steele an Torrie, 1960) was used to evaluat all data, and treatment means wer tested for significance using Duncan's New Multiple Range Tes (Duncan, 1955).

Results and Discussion

The average daily gain of steers that received supplemental grain for 150 days was greater[4] than that of steers that received no grain (Table 1). Steers fed grain for the last 64 days also outgained the control group but did not gain as much as those fed grain throughout the trial. The average daily gain and gain per acre for the group receiving no supplemental grain was 2.57 and 463.9 lbs., respectively, a reflection of the abundance of high quality forage that was available to the steers.

Previous research at this station (Brock, 1968) has shown that similar pastures can be stocked at a heavier rate than the 1.2 steers per acre used in this experiment. Our experimental pastures were deliberately understocked so that grain would be a supplement to and not a substitute for pasture.

Our data suggest that supplementing ryegrass-crimson clover pasture with grain is mos beneficial to animal performanc when forage growth is less than optimum or when pastures ar overstocked. Forage growth i period three of our study (Feb. 11 March 10) was less than that required for maximum animal performance. The average minimum daily temperature (Table 2) for thi period was 45.7° F, indicating tha some daily temperatures were to low for forage regrowth. Periods

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[2] *Infectious bovine rhinotracheitis, bovine viral diarrhea, Parainfluenza complex.*

[3] *Panel members evaluated steaks from only five steers at each tasting session.*

[4] *Differences reported here and elsewhere in this bulletin were significant at $P < .05$. In other words, the probability that the differences were due to chance is very small.*

Table 1. Number and stocking rate, initial and final weight and performance of steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Item	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trial*	 Grain fed for last 64 days of trial*
Number	12	12	12
Steers per acre (number)	1.2	1.2	1.2
Average initial wt. (lbs.)	499.7	503.4	499.8
Average final wt. (lbs.)	886.3	937.3	908.7
Average daily gain (lbs.)	2.57^{a}	2.88^{b}	2.72^{ab}
Gain per acre (lbs.)	463.9	520.7	490.7
Grain consumption per head (lbs.)	0	1064	576
Grain per lb. of added gain (lbs.)	0	22.5	25.8

* Grain fed daily at one percent of body weight.

^{ab}Means on the same line with different superscripts differ significantly ($P < .05$).

Table 2. Average maximum and minimum temperature and average rainfall, by periods, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Period	Average temperature Maximum	 Minimum	Rainfall
	Degrees		Inches
1 (Dec. 17-Jan. 13)	67.4	47.5	7.3
2 (Jan. 14-Feb. 10)	67.8	48.7	1.5
3 (Feb. 11-March 10)	70.3	45.7	3.1
4 (March 11-April 7)	74.5	49.9	7.8
5 (April 8-May 5)	78.4	60.2	12.2
6 (May 6-May 15)	83.2	66.9	2.2

Table 3. Forage availability of ryegrass-crimson clover pasture by periods, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Item and period	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trial*	 Grain fed for last 64 days of trial*
Standing forage height			
December 17 (inches)	5.3	5.3	5.5
February 25 (inches)	4.6	4.8	4.6
May 5 (inches)	18.0	19.0	18.0
Harvested hay (lb. per acre) ^{a}	1384	2127	2187

* Grain fed daily at one percent of body weight.

^{a} 80.8% DM and 11.0% CP.

Table 4. Average daily gain, by periods, steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Period	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trail*	 Grain fed for last 64 days of trial*
	----Pound----		
1 (Dec. 17-Jan. 13)	3.09	2.89	3.13
2 (Jan. 14-Feb. 10)	3.54	3.48	3.33
3 (Feb. 11-March 10)	2.48[a]	3.19[b]	2.51[a]
4 (March 11-April 7)	3.10	3.55	3.33
5 (April 8-May 5)	1.77	2.14	2.10
6 (May 6-May 15)	-0.11	0.67	0.22

* Grain fed daily at one percent of body weight.

[ab] Means on the same line with different superscripts differ significantly ($P < .05$).

> "Only in period 3...did the steers that received supplemental grain gain more than those on pasture only."

Table 5. Composition[a] of ryegrass-crimson clover pasture by periods, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Period and forage component	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trial*	 Grain fed for last 64 days of trial*
	----Percent----		
December 17			
Ryegrass	87.5	90.5	91.5
Clover	12.5	9.5	8.5
February 25			
Ryegrass	81.2	80.7	75.7
Clover	18.8	19.3	24.3
May 5			
Ryegrass	96.4	97.3	98.3
Clover	3.6	2.7	1.7

* Grain fed daily at one percent of body weight.

[a] Dry matter basis.

> "...crimson clover had practically disappeared from the forage mixture by day 140."

and 3 also were the periods of least rainfall. Available forage (Table 3) was lowest at day 70 when forage was only 4.6 to 4.8 inches tall, lower than the recommended height of 6 to 8 inches (McKie, *et al.,* 1974). Only in period 3, when pasture conditions were at their worst, did the steers that received supplemental grain gain more than those on pasture only (Table 4).

Forage quality decreased rapidly after the average maximum daily temperature exceeded 80°F and crimson clover had practically disappeared from the forage mixture by day 140 (Table 5). Forage quality also decreased markedly near the end of the trial (Table 6). Consequently, average daily gains decreased rather sharply toward the end of the trial and the steers that received no grain lost weigh in the last 10 days of the trial.

These data point to the need fo using an annual clover that wil grow later into warmer weather o for combining two clovers to realiz both early and late growth. The im portance of including clover wit ryegrass for winter-grazing ha been demonstrated at this statio with heifers. Heifers in the 112-da rial gained 61 pounds per acre more on ryegrass-crimson clover han did a similar group on yegrass alone (unpublished data).

Steers fed grain tended to be heavier at slaughter; however, average carcass weights from all reatments (520-570 lbs) were very desirable (Table 7). Dressing percentage, conformation, Rib Eye Area and marbling score did not differ appreciably although steers hat received grain tended to possess more marbling. Fat thickness and yield grade were higher for steers that received grain for the duration of the trial---differences that reflected their greater slaughter weight and higher total fat content.

Fat color for steers in this trial averaged creamy white with no apparent differences due to grain supplementation. Other workers (McCampbell *et al.,* 1974) have reported that yellow fat was not evident when steers were finished on winter pasture. Steers that grazed ryegrass-clover pasture and received no supplemental grain had the same fat coloring (creamy white) as those that received grain throughout the trial.

Armour tenderometer scores and Warner-Bratzler shear values revealed no differences in predicted tenderness due to grain supplementation (Table 8). Tenderometer scores and Warner-Bratzler shear values were similar to those reported by other workers when steers were finished on grass with supplemental grain (Huffman, 1974; Olentine *et al.,* 1974) or in feedlots (Luckett *et al.,* 1975). These Warner-Bratzler shear values are in the acceptable range of beef tenderness on one-inch cores.

A critical taste panel evaluation of steaks that had no salt or other seasoning showed no difference in juiciness, flavor, tenderness or overall satisfaction among treatments. Taste panel values placed on beef in this study were similar to values that the same trained group of panel members had assigned to USDA Choice beef in past studies.

Table 6. Forage quality of ryegrass-crimson clover pasture, by periods, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Period and quality measure	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trial*	 Grain fed for last 64 days of trial*
	----Percent----		
December 17			
Crude protein[a]	30.9	30.2	31.2
DDM[b]	79.2	77.4	80.0
February 25			
Crude protein[a]	20.6	20.9	21.3
DDM[b]	76.8	78.6	77.0
May 5			
Crude protein[a]	18.2	16.4	17.1
DDM[b]	57.5	58.2	55.4

* Grain fed daily at one percent of body weight.

[a] Calculated as a percentage of the dry weight.

[b] Estimated digestible dry matter.

Table 7. Carcass characteristics of steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

Item	Ryegrass-crimson clover pasture No grain	 Grain fed throughout trial*	 Grain fed for last 64 days of trial*
Shrunk wt. (lbs.)**	886.3	937.3	908.7
Carcass wt. (lb.)	523.4	569.4	543.4
Dressing %	58.96	60.63	59.75
Conformation[c]	11.5	12.0	12.2
Marbling[d]	4.92	5.75	6.50
Fat thickness (in.)	0.38[a]	0.57[b]	0.38[a]
Yield grade	2.46[a]	3.03[b]	2.33[a]
Rib eye area (sq. in.)	10.31	10.18	11.05
Quality grade[c]	10.25	10.58	10.75
Fat color[e]	2.00	2.17	1.92
Muscle color[f]	1.08	1.17	1.33
Armour tenderometer (lbs.)	14.0	14.0	13.7

*Grain fed daily at one percent of body weight.

**Weight taken following a 24-hour withdrawal from feed and a 12-hour withdrawal from water.

[ab] Means on the same line with different superscripts differ significantly ($P < .05$).

[c] 10 = Good; 11 = Good +; 12 = Choice -; etc.

[d] 5 = Slight; 6 = Slight +; 7 = Small -; etc.

[e] 1 = White; 2 = Creamy white; 3 = Slightly yellow; etc.

[f] 1 = Normal; 2 = Shady; 3 = Dark cutter.

Table 8. Average values (X) with standard errors (s) of Warner-Bratzler shear values and organoleptic traits of steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Ryegrass-crimson clover pasture					
	No grain		**Grain fed throughout trial***		**Grain fed for last 64 days of trial***	
Item	$\bar{X}^a$	s^b	$\bar{X}^a$	s^b	$\bar{X}^a$	s^b
Warner-Bratzler (lb)	25.6	(1.3)	23.7	(1.3)	24.0	(1.4)
Flavor	7.1	(0.1)	7.2	(0.1)	7.0	(0.1)
Juiciness	7.0	(0.2)	7.2	(0.2)	7.0	(0.2)
Tenderness	6.7	(0.2)	7.0	(0.2)	6.6	(0.2)
Overall satisfaction	6.9	(0.1)	7.2	(0.1)	6.8	(0.1)

***Grain fed daily at one percent of body weight.**
[a]Average.
[b]Standard error.

> **"...shear values revealed no differences in predicted tenderness due to grain supplementation."**

Consumer Acceptance

We studied consumer acceptance of beef from our test animals by having it placed in the retail meats section of four stores of a large retail chain---three located in Jackson, Mississippi; the other in Meridian, Mississippi. All cuts were processed, wrapped and priced in the cooperating stores' meat department. Normal cutting procedures were used and the identity of each animal was maintained by recording a code number on the bottom of each package. All cuts from each animal were sold in the same store.

Meat from our test animals was displayed so that it could not be differentiated from the stores' regular meat supply. Consequently, consumers had no knowledge that an experiment was being conducted.

Four cuts were selected as representative of each carcass---T-bone, ribeye steak, round steak and bone-in blade chuck roast. Cuts of beef from the test carcasses that graded USDA Good were displayed in the three Jackson stores so that sales could be compared with sales of like cuts from carcasses grading USDA Choice. Carcasses of test animals grading USDA Choice were shipped to Meridian where sales of the selected cuts were compared to sales of the store's normal offering of the same cuts from carcasses grading USDA Choice. Top round was used instead of full-cut round in the Meridian store.

Cuts from the test animals that graded USDA Good were priced at the three Jackson stores as follows: Store 1---the store's "normal" price of USDA Good relative to that of USDA Choice; Store 2---ten cents below the store's "normal" price of USDA Good relative to USDA choice; and Store 3---ten cents above the store's "normal" price of USDA Good relative to USDA Choice.

Sales were monitored on two consecutive Fridays (May 23 and May 30, 1975) between the hours of 2:00 P.M. and 7:00 P.M., the period considered to be that of peak traffic flow for the cooperating stores. An inventory of all sales was kept on an individual package basis.

Results---Sales of T-bone and top round from the test carcasses grading USDA Choice were below those of the same cuts of USDA Choice from the Meridian store's regular source of supply; sales o ribeye and chuck roast from the test carcasses exceeded sales o these cuts from the store's regular source of supply (Table 9). No sales were recorded for chuck roast cu from the store's regular supply.

Sales of T-bone, round and ribeye from our test animals exceeded sales of these cuts from the store's regular source of supply when priced at the store's "normal" price of USDA Good relative to the price of USDA Choice (Table 10). Sales of all retail cuts for which comparisons could be made were greater for our test animals when priced at ten cents below the store's normal price of USDA Good relative to USDA Choice (Table 11) Also, sales of all cuts were greater for our test animals, even when priced at ten cents above the store's normal price of USDA Good relative to USDA Choice (Table 12)

Consumers appeared not to differentiate between USDA Choice cuts from the Meridian store's regular source of supply and USDA Choice cuts from our test animals. Sales of retail cuts of beef from our test animals that graded

Table 9. Sales of selected cuts of USDA Choice beef from regular sources of supply and from test animals, in a Meridian, Mississippi store, May 23 and May 30, 1975.

Cut and date	Price	Choice Beef					
		Regular supply source			Test animals		
		Displayed	Sold	Average weight	Displayed	Sold	Average weight
	$/Lb.	Number		Lbs.	Number		Lbs.
T-bone							
May 23	2.19	31	9	1.32	24	7	1.22
May 30	2.19	12	5	1.05	12	1	2.23
Total		43	14	1.22	36	8	1.35
Top round							
May 23	2.19	9	2	1.17	16	3	1.07
May 30	2.19	20	8	.74	14	2	1.07
Total		29	10	.82	30	5	1.07
Rib eye							
May 23	3.69	24	4	1.80	9	5	1.99
May 30	3.69	25	3	1.34	9	4	1.41
Total		49	7	1.61	18	9	1.73
Chuck roast							
May 23	.89	8	0	—	7	4	2.98
May 30	.89	8	0	—	8	1	3.06
Total		16	0	—	15	5	2.99

> ***"...sales of ribeye and chuck roast from the test carcasses exceeded sales of these cuts from the store's regular source of supply."***

Table 10. Sales of selected cuts of beef, USDA Choice from regular sources of supply and USDA Good from test animals, priced at the store's "normal" differential between Choice and Good, in one Jackson, Mississippi store, May 23 and May 30, 1975.

Cut	USDA Choice beef from regular sources of supply				USDA Good beef from test animals			
and Date	Price	Displayed	Sold	Average weight	Price	Displayed	Sold	Average weight
	$/lb.	Number		lbs.	$/lb.	Number		lbs.
T-bone								
May 23	2.09	23	14	1.07	1.79	32	21	1.06
May 30	2.09	23	5	1.13	1.79	69	60	1.11
Total		46	19	1.08		101	81	1.09
Round								
May 23	1.99	25	15	1.65	1.59	30	22	1.83
May 30	1.99	22	10	1.92	1.59	32	20	1.96
Total		47	25	1.75		62	42	1.89
Ribeye								
May 23	3.69	6	0	—	2.89	15	9	1.14
May 30	3.69	9	2	1.18	2.89	22	8	1.01
Total		16	2	1.18		37	17	1.08
Bone-in-blade Chuck roast								
May 23	.99	32	12	3.61	.89	16	8	3.28
May 30	.89[a]	29	8	4.05	.89	17	10	3.29
Total		61	20	3.79		33	18	3.29

[a] Price was reduced by the store manager.

"Sales of T-bone, round and ribeye from our test animals exceeded sales of these cuts from the store's regular source of supply when priced at the store's 'normal' price of USDA Good relative to the price of USDA Choice."

"Sales of all retail cuts...were greater for our test animals when priced at ten cents below the store's normal price of USDA Good relative to USDA Choice."

Table 11. Sales of selected cuts of beef, USDA Choice from regular sources of supply and USDA Good from test animals, with cuts from test animals priced ten cents below the store's "normal" price of USDA Good relative to USDA Choice, in a second Jackson, Mississippi store, May 23 and May 30, 1975.

Cut	USDA Choice beef from regular sources of supply				USDA Good beef from test animals			
and date	Price	Displayed	Sold	Average weight	Price	Displayed	Sold	Average weight
	$/lb.	Number		lbs.	$/lb.	Number		lbs.
T-bone								
May 23	2.09	32	10	1.00	1.69	37	18	1.06
May 30	2.09	36	3	.84	1.69	10	5	1.06
Total		68	13	.96		47	23	1.06
Round								
May 23	—	a	—	—	1.49	30	15	1.99
May 30	—	a	—	—	1.49	10	7	1.53
Total						40	22	1.84
Ribeye								
May 23	3.69	3[b]	3[b]	—	2.79	19	8	1.37
May 30	—	a	a	—	2.79	6	3	.50
Total						25	11	1.13
Bone-in-blade Chuck roast								
May 23	.99	15	11	2.50	.79	24	19	3.03
May 30	.99	6	0	—	.79	9	7	3.00
Total		21	11	2.50		33	26	3.02

[a] Store did not have this item.
[b] Insufficient number for test.

"...sales of all cuts were greater for our test animals, even when priced at ten cents above the store's normal price..."

Table 12. Sales of selected cuts of beef, USDA Choice from regular sources of supply and USDA Good from test animals, with cuts from test animals priced ten cents above the store's "normal" price of USDA Good relative to USDA Choice in a third Jackson, Mississippi store, May 23 and May 30, 1975.

	USDA Choice beef from regular sources of supply				USDA Good beef from test animals			
Cut	Price	Displayed	Sold	Average weight	Price	Displayed	Sold	Average weight
	$/lb.	Number		lbs.	$/lb.	Number		lbs.
T-bone								
May 23	1.99	23	16	.94	1.89	64	33	.94
May 30	2.09	40	32	1.14	1.89	40	33	1.02
Total		63	48	1.07		104	66	.98
Round								
May 23	1.89	37	9	1.65	1.69	48	28	1.89
May 30	1.89	23	12	1.80	1.69	40	31	1.79
Total		60	21	1.73		88	59	1.84
Ribeye								
May 23	3.69	17	10	.88	2.99	39	36	1.18
May 30	3.69	28	17	1.17	2.99	28	23	1.12
Total		45	27	1.06		67	59	1.16
Bone-in-blade Chuck roast								
May 23	.99	21	6	2.87	.99	27	14	3.02
May 30	.99	32	9	3.52	.99	23	15	3.09
Total		53	15	3.26		50	29	3.06

USDA Good revealed no reluctance of consumers to purchase beef from cattle finished on pasture, either with or without grain supplementation. In fact, consumers favored selected cuts from test animals grading USDA Good at all three price differentials. We conclude from these results that selected cuts from pasture-finished beef grading USDA Good would be competitive with the same cuts of USDA Choice from regular sources of supply even at narrower price differentials than those used in our tests.

Limitations of the study---Our conclusion appears to be valid despite several serious limitations of our study: First, the number of test animals available limited the time for observing consumer reaction and did not produce enough observations to permit formal statistical analysis. Second, the "Normal" differences in prices of USDA Choice and USDA Good were not the same in the three Jackson stores and some store managers also arbitrarily departed from the price differences specified for our study. Third, the socioeconomic backgrounds of shoppers in the three Jackson stores may have differed from those of consumers generally; thus, their purchases may not have given an accurate reflection of consumer differentiation between "test beef" and "regular beef." Finally, we had control only of the amount of display space. Merchandising techniques could have promoted sales of beef from the stores' regular source of supply.

Economic Analysis

Records of operations performed and of direct expenses incurred were maintained during the grazing study. However, because the individual producer must be concerned with covering *all* costs of production, we added to the recorded expenses certain other costs---i.e., interest on investment in land, interest on operating capital, and interest on investment in tractor and equipment. All expenses were adjusted to an acre basis using the stocking rate of 1.2 steers per acre.

"...the pastures used in our experiment cost $95.06 per acre."

Table 13. Costs per acre, gain per acre and cost per pound of gain of steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Ryegrass-crimson clover pasture		
Item	No grain	Grain fed throughout trial*	Grain fed for last 64 days of trial*
Pasture costs			
tractor and equipment	$ 11.81	$ 11.81	$ 11.81
labor	4.75	4.75	4.75
seed and fertilizer	78.50	78.50	78.50
Subtotal	95.06	95.06	95.06
Veterinary supplies	3.34	3.34	3.34
Feeding and handling labor [a]	14.25	23.75	18.25
Grain	0	98.96	53.57
Hauling	3.00	3.00	3.00
Subtotal	20.59	129.05	78.16
Interest on land investment	13.12	13.12	13.12
Interest on operating capital	14.15	19.85	17.17
Subtotal	27.27	32.97	30.29
Total	$142.92	$257.08	$203.51
Gain (lb/acre)	464	521	491
Cost per pound of gain	$ .308	$ .493	$ .414

*** Grain fed daily at one percent of body weight.**

[a] Handling labor was the same for all groups of steers---$1.75 per acre based on .7 hours per acre and $2.50 per hour wage rate.

Pasture Costs

We estimate that the pastures used in our experiment cost $95.06 per acre (Table 13). The equipment cost (for chisel plowing, fertilizing, disking, harrowing, planting, and cultipacking) was $11.81---$6.42 of direct or variable cost and $5.39 of fixed cost.[5] Labor cost for pasture preparation amounted to $4.75---1.9 hours charged at $2.50 per hour. Seed and fertilizer cost was $78.50---$22.50 for seed and $56.00 for fertilizer.

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[5] *Equipment sizes, time, and labor* **normally** *required for the pasture preparation operations are shown in Table 14. Estimates of hourly costs of operation for tractor and equipment are shown in Table 15.*

Table 14. Operations performed, tractors and equipment used, by size, and machinery and labor time requirements for establishing one acre of ryegrass-crimson clover pasture, South Mississippi Branch Experiment Station, October 1974.

Operation	Tractor size	Equipment size	Time Requirement Machinery	Time Requirement Labor
			----Hours----	
Chisel plow	100 h.p.	7′	.44	.5
Disk	100 h.p.	12′	.28	.3
Rotary spreader	40 h.p.		.20	.2
Harrow	40 h.p.	4-row	.16	.2
Plant	40 h.p.	9′ drill	.36	.4
Cultipacker	40 h.p.	8′	.30	.3

Table 15. Hourly costs of operating tractors and equipment[a] used in establishing ryegrass-crimson clover pasture, South Mississippi Branch Experiment Station, October 1974.

Item	Size	Hourly cost Direct	Hourly cost Fixed	Hourly cost Total
Tractor	100 h.p.	$3.52	$1.76	$5.28
Tractor	40 h.p.	2.36	1.18	3.54
Chisel plow	7′	.51	1.13	1.64
Disk	12′	1.63	2.97	4.60
Rotary spreader	-	.72	1.21	1.93
Harrow	4 row	.26	.51	.77
Drill	9′	1.39	2.87	4.26
Cultipacker	8′	.39	.77	1.16

[a] These costs are adapted directly from MAFES Bul. 834 and Agricultural Economics Mimeogaphed Reports 59 and 65. Because the basic data were developed for tractors and equipment used on row crop farms, they are extremely conservative for use in evaluation of costs for a livestock farm. For example, tractor costs are based on 1000 hrs. of use per year. A "typical" livestock operation would likely require less tractor use. If use amounted to only 500 hr. per year, fixed costs per hour would be approximately doubled, raising total cost per hour of use for a 100 h.p. tractor from $5.28 to $7.04. Such large adjustments in fixed and total costs may also be appropriate for other items of equipment, especially disks, chisel plows, and grain drills. Also, fuel costs were based on diesel fuel at 30¢, which is substantially lower than the current price.

Animal Production Costs

We include as costs directly associated with animal production the following: veterinary supplies, feeding and handling labor, grain and hauling. Total costs per acre for these items were $20.59 when no grain was fed, $129.05 when grain was fed throughout the trial and $78.16 when grain was fed for the last 64 days of the trial.[6]

The cost of grain and the payment to labor for feeding it were the only expense items directly associated with animal production that were different for the three groups of steers. The cost of feeding supplemental grain throughout the trial was $108.46 per acre---$98.96 for the grain and $9.50 for feeding it. Cost of feeding the steers that received supplemental grain for the last 64 days of the trial was $57.57 per acre---$53.57 for the grain and $4.00 for feeding it.[7]

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[6] *Detailed expenses on a per head basis are shown in Table 16.*

Table 16. Cost per head and per acre of veterinary supplies, feed, and hauling, steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Costs	
Item	**Per Head**	**Per Acre**[a]
	----Dollars----	
Vaccination (IBR-BVD-PI$_3$)	.50	.60
Implant (24 mg DES)	.18	.22
Anthelmintic (10 cc injectable Tramisol)	.90	1.08
Vitamin A (2 cc injected)	.06	.07
Ruelene (4 oz.)	.30	.36
Salt and minerals	.84	1.01
Grain fed 150 days[b]	82.46	98.95
Grain fed last 64 days of trial[c]	44.64	53.57
Hauling	2.50	3.00
Total costs:		
No grain	5.28	6.34
Grain fed 150 days	87.74	105.29
Grain fed last 64 days of trial	49.92	59.90

[a] Cost per head times 1.2 animals per acre.
[b] 1064 lbs. of corn priced at $155 per ton.
[c] 576 lbs. of corn priced at $155 per ton.

Table 17. Labor requirements for feeding and inspecting steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Ryegrass-crimson clover pasture			
Item	**No grain**	**Grain fed throughout trial***	**Grain fed for last 64 days of trial***	
	Inspecting	**Inspecting and Feeding**	**Inspecting**	**Feeding**
Minutes per day	20	35	20	35
No. of days	150	150	86	64
Total hours	50	87.5	28.67	37.33
Hours per acre	5.0	8.8	6.6	

***Grain fed daily at one percent of body weight.**

Interest on Land Investment

We assumed a land value of $250 per acre and an interest rate of nine percent and calculated an opportunity land cost of $22.50 per acre per year. As the land was used for only seven months in finishing the steers, we include a land charge of $13.12---7/12 of the $22.50 annual land charge.[8]

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[7] *Labor requirements for feeding and inspection are shown in Table 17.*

[8] *If there is no alternative use of the land for the remaining five months, it is appropriate to charge the full $22.50 to the grazing activity.*

Interest on Operating Capital

Interest was charged at nine percent for seven months on operating capital by item as follows: investment in animals, seed, and fertilizer; direct tractor and equipment expense; expenditure for animal health supplies; cost of grain; and labor expense. Our calculated interest charge varied directly with the amount of grain that was fed---ranging from $14.15 per acre when no grain was fed to $19.85 when steers were fed grain throughout the trial.

Interest on Other Investment

Other typical capital investment for a beef cattle operation includes buildings, fences, grain storage, cattle chutes, waterers, and pickup truck. No charge was made for these items, due to the difficulty of arriving at representative figures. However, these costs can be substantial---and the individual producer who has reasonable estimates of these costs should include them when evaluating the relative profitability of alternative production activities.

Cost per Pound of Gain

Gain was measured as the difference between purchase weight and sale weight.[9] Steers that received no supplemental grain gained 464 pounds per acre at a cost per pound of 30.8 cents; steers that were fed grain throughout the trial gained 551 pounds per acre and cost per pound of gain was 49.3 cents; and steers that received grain for only 64 days gained 491 pounds per acre at a per pound cost of 41.4 cents.

Gross Returns

Our calculated returns from finishing the steers on ryegrass-crimson clover pasture include both the value of animals sold and the value of excess forage harvested as hay. The animals were sold "on the rail" and the "rail" price was converted to a liveweight price of about 44 cents per pound for steers that were fed grain throughout the trial and about 43 cents per pound for the others. The value of excess forage harvested was estimated.

Calculated per acre income from the sale of animals was $458.80, $499.04 and $469.38, respectively, for animals that received no grain, for animals that received grain throughout the trial and for animals that received grain for the last 64 days of the trial (Table 18). We added our estimated value of excess forage harvested as hay to arrive at total gross returns per acre of $489.94, $546.88 and $518.59, respectively, for steers that were finished on pasture only, for steers that received supplemental grain for the 150 days, and for steers that were fed for only the last 64 days of the trial.

Table 18. Per animal and per acre returns from sale of animals plus estimated value of harvested hay, steers grazing ryegrass-crimson clover with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Ryegrass-crimson clover pasture		
Item	No grain	Grain fed throughout trial*	Grain fed for last 64 days of trial*
Sale price ($ per lb.)	.43[a]	.44[a]	.43[a]
Weight per animal (lb.)	886.3	937.3	908.7
Income per animal ($)	$382.33	$415.87	$391.15
Beef income per acre ($)[b]	$458.80	$499.04	$469.38
Value of harvested hay per acre ($)	$ 31.14	$ 47.84	$ 49.21
Total returns per acre ($)	$489.94	$546.88	$518.59

*Grain fed daily at one percent of body weight.
[a] Approximate price.
[b] Income per animal times 1.2 steers per acre.

Net Returns: Alternative Measures

The expenses and gross returns figures calculated above are summarized in Table 19 to provide alternative measures of profitability. The first measure of returns in Table 19 is calculated to cover all

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[9] *Both weights taken following a 24-hour withdrawal from feed and a 12-hour withdrawal from water.*

Table 19. Summary budget of income, expense, and returns per acre, steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

				Ryegrass-crimson clover pasture		
Item	Unit	Quantity	Price	No grain	Grain fed throughout trial*	Grain fed for last 64 days of trial*
Income						
Animal sales	lb	1064	$.43[a]	458.80	—	—
	lb	1125	.44[a]	—	499.04	—
	lb	1090	.43[a]	—	—	469.38
Value of hay	bales	37	.84[a]	31.14	—	—
	bales	57	.84[a]	—	47.84	—
	bales	58	.84[a]	—	—	49.21
Total				489.94	546.88	518.59
Expense						
Animals	lb	601	.27	162.27	162.27	162.27
Vet. supplies	$	—	—	3.34	3.34	3.34
Ryegrass seed	lb	30	.30	9.00	9.00	9.00
Crimson clover seed	lb	15	.90	13.50	13.50	13.50
Fertilizer						
(8-24-24)	cwt	3	8.00	24.00	24.00	24.00
(amm. nit.)	cwt	4	8.00	32.00	32.00	32.00
Tractor & equipment (variable exp.)	$	—	—	6.42	6.42	6.42
Grain	cwt	12.77	7.75	—	98.96	—
	cwt	6.91	7.75	—	—	53.57
Labor	hr	7.6	2.50	19.00	—	—
	hr	11.4	2.50	—	28.50	—
	hr	9.2	2.50	—	—	23.00
Int. on op. cap.	$	269.51	.09 x 7/12	14.15	—	—
	$	378.00	.09 x 7/12	—	19.85	—
	$	327.12	.09 x 7/12	—	—	17.17
Hauling	$	—	—	3.00	3.00	3.00
Hay harvest	bales	37.0	.45	16.65	—	—
	bales	56.8	.45	—	25.56	—
	bales	58.3	.45	—	—	26.24
Tractor & equipment (fixed exp.)	$	—	—	5.39	5.39	5.39
Land charge	$	—	—	13.12	13.12	13.12
Total				321.84	444.91	392.02
Returns to management and general farm overhead				168.10	101.97	126.57
Returns to land, management, and general farm overhead				181.22	115.09	139.69
Returns to capital, land, management, and general farm overhead				200.76	140.33	162.25
Returns to labor, capital, land, management, and general farm overhead				219.76	168.83	185.25

***Grain fed daily at one percent of body weight.**

[a] Approximate.

costs except management and general farm overhead---$168.10 per acre where no grain was fed, $101.97 per acre where grain was fed 150 days, and $126.57 per acre where grain was fed the last 64 days.

The three other measures of returns reflect ways in which different producers might wish to view returns---depending on whether charges are made for certain input items. For example, the last measure of returns in the table does not include a specific charge for labor, the use of capital, or the opportunity cost of land---and represents a situation where only "out-of-pocket" costs are counted.

Margin Requirements for Breakeven Operation

The returns presented in Table 19 reflect a positive margin of 16 cents per pound for the animals used in this study---a 43 cent selling price minus a 27 cent purchase price. Observation of prices for the past few years indicates that such a margin is highly unusual. In fact, the average margin for 1970-74 was only 2.25 cents per pound (Table 20). Based on that margin, grazing only, feeding grain for 150 days and feeding grain the last 64 days would have provided returns to management and general farm overhead (including the value of hay harvested) of $22.18, -$65.19, and -$21.26 per acre, respectively.

One aid to evaluating profit potential is the margin required for a "break-even" operation. Such margins are calculated (for conditions of this study) in Table 21. Only a 1.7 cent per pound margin was required for the "no grain" treatment, while margins of 10.3 and 6.5 cents per pound, respective-

Table 20. Average prices of good-to-choice steers, Mississippi, December 15 and May 15, 1970-74

Year	Dec. 15[a]	May 15[b]	Margin[c]
		----($/lb)----	
1970-71	.270	.305	+.035
1971-72	.295	.330	+.035
1972-73	.335	.415	+.080
1973-74	.445	.395	-.060

[a] **December prices are for 500 lb steers.**

[b] **May prices are for 1000 lb steers.**

[c] **Margin is the change in price per pound between a steer bought at 500 pounds in December and sold at 1000 pounds the following May.**

SOURCE: Couvillion, W. C., and H. S. Ishee. 1974. ***Livestock Marketing Statistics, 1948-1973, Mississippi.*** **Miss. Agr. and Forestry Exp. Sta.; Miss. Crop and Livestock Reporting Service.**

Table 21. Margin requirements for breakeven operation, steers grazing ryegrass-crimson clover pasture with different levels of supplemental grain, South Mississippi Branch Experiment Station, December 17, 1974-May 15, 1975.

	Ryegrass-crimson clover pasture		
Item	No grain	Grain fed throughout trial*	Grain fed for last 64 days of trial*
Total cost per animal ($)[a]	254.32	349.46	304.82
Sale weight (lb.)	886.3	937.3	908.7
Breakeven price (¢ per lb)	28.7	37.3	33.5
Purchase price (¢ per lb)	27.0	27.0	27.0
Margin required (¢ per lb)	+1.7	+10.3	+6.5

*** Grain fed daily at one percent of body weight.**

[a] **Excludes cost of harvesting excess forage.**

ly, were required for grain fed 150 days and grain fed the last 64 days.

Because finishing steers on pasture alone (no grain) is calculated to be the most profitable, the breakeven analysis for this alternative is extended to cover a range of purchase prices (Table 22). Production costs are assumed to be the same for all purchase price situations. Margin requirements for a breakeven operation range from 1.6 cents per pound at a purchase price of 24 cents per pound to -3.3 cents per pound at a purchase price of 36 cents per pound.

Current high grain prices have disturbed the "usual" feedlot activity. In recent years, producers have been able to realize a profit by marketing feeder cattle when a large positive price spread did not exist. Present weakness in the demand for lightweight calves for grain finishing may signal a relatively permanent change in the market structure for beef. Feeder cattle producers need to consider every management and marketing alternative to obtain the highest return possible.

Table 22. Cost per acre and breakeven sales prices for steers grazing ryegrass-crimson clover pasture (with no supplemental grain), South Mississippi Branch Experiment Station, December 17, 1974 - May 15, 1975.

	Purchase price				
Item	.24	.27	.30	.33	.36
			(Dollars)		
Initial cost[a]	144.29	162.32	180.36	198.40	216.43
Veterinary	3.34	3.34	3.34	3.34	3.34
Seed and fertilizer	78.50	78.50	78.50	78.50	78.50
Tractor and equipment	11.81	11.81	11.81	11.81	11.81
Labor	19.00	19.00	19.00	19.00	19.00
Hay harvest	16.65	16.65	16.65	16.65	16.65
Hauling	3.00	3.00	3.00	3.00	3.00
Land charge	13.12	13.12	13.12	13.12	13.12
Int. on op. capital[b]	13.70	14.71	15.72	16.73	17.74
Total cost	303.41	322.45	341.50	360.55	379.59
Less value of harvested hay	-31.14	-31.14	-31.14	-31.14	-31.14
Net cost	272.27	291.31	310.36	329.41	348.45
Market weight, lb	1064	1064	1064	1064	1064
Breakeven price	.256	.274	.292	.310	.327

[a] 501 lb/head x 1.2 head/acre = 601.2 lb/acre.

[b] Calculated at 9% for 7 months on initial cost, veterinary, seed and fertilizer, tractor and equipment variable expense ($6.42), and labor.

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